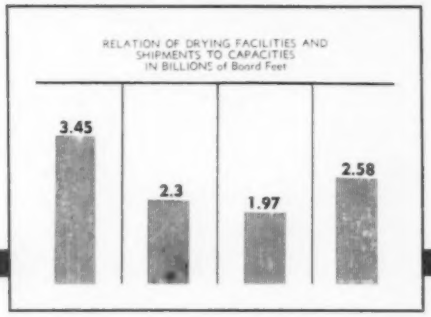
OCTOBER, 1960

THE Lumberman

LUMBER PLYWOOD BOARD WOOD MANUFACTURING

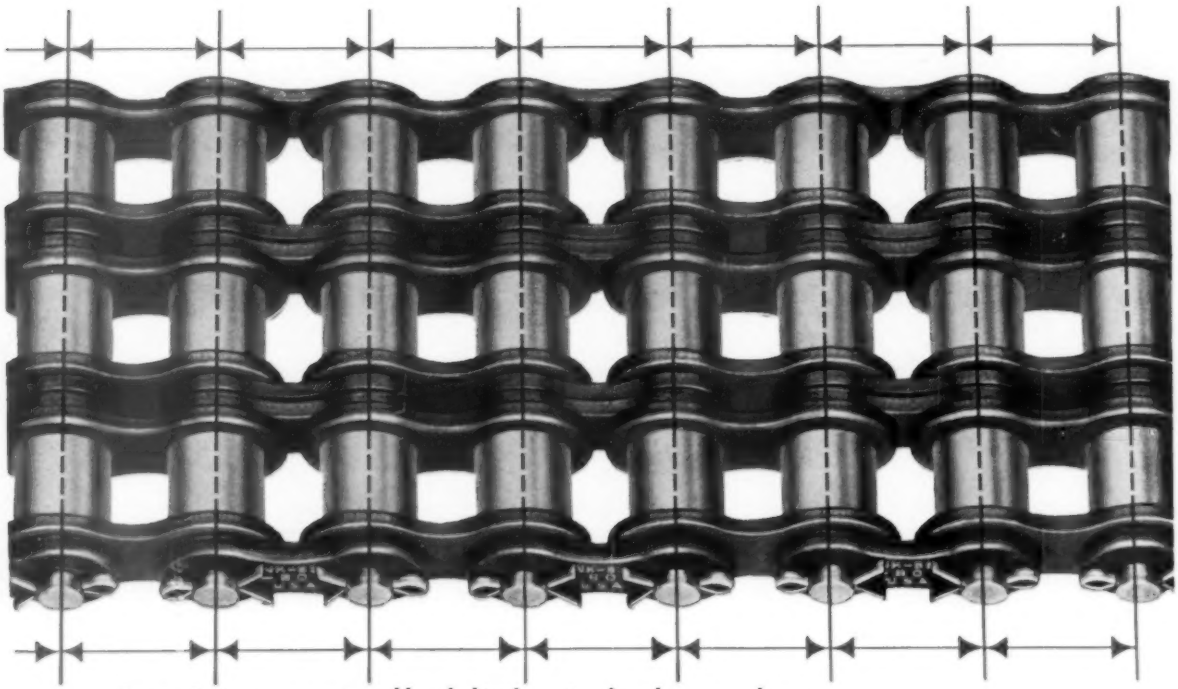
Fast Operating Press speeds up production at Bowater plant. Novel caul return system pictured here is another new development. **Page 34**



Seasoning . . . results of a special survey by The Lumberman show where industry members stand on this important marketing and manufacturing issue. **Page 39**

South African Multiple Gang Mill handles 2.5 million cubic feet, round log scale, yearly. Sorting system shown here simplifies operation. **Page 46**

Hardwood Panels in Many Faces produced at integrated Canadian operation at Quebec. Wood handling system pictured is key operation. **Page 70**



Precision controlled link pitch throughout
LINK-BELT roller chain means

equal length... equal strength

How pre-stressing ensures uniform load distribution of multiple-width LINK-BELT roller chain

Pre-stressing is one of the reasons why Link-Belt multiple-width precision steel roller chains easily handle the grueling loads common on today's drives. It seats and cold works the chain joint parts, assuring equal load distribution across the chain, minimum initial elongation, increased fatigue life.

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PRE-STRESSING MACHINE provides the pull that "sets" the parts of Link-Belt multiple-width roller chain. Besides assuring uniform load distribution, pre-stressing eliminates application difficulties on fixed center drives because the chain leaves the factory at precise operational length.

BOOK 2657 has 154 pages of roller chain data. Contact your nearest Link-Belt office or authorized stock-carrying distributor. (See CHAINS in the yellow pages of your phone book.)

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AXLES

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VOLUME 87 • NUMBER 10

OCTOBER, 1960

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THE Lumberman

LUMBER PLYWOOD BOARD WOOD MANUFACTURING

Fast Operating Press speeds production at new Bowater plant in Catawba, S. C. **34**

Seasoning . . . A survey by The Lumberman indicates feeling of the industry on this important manufacturing and marketing problem. **39**

Memory Controlled Center Face Printer solves problem of grade-marking sheathing, framing for Hill Lumber Co., Curlew, Washington. **44**

South African Multiple Gang Mill handles 2.5 million cubic feet, round log scale, yearly, with modern Swedish equipment. **46**

Chipping Plant Aids Recovery for Ossippee Lumber Co., West Ossippee, N. H., which converts residues from nearby mills into chips for paper mill. **68**

Plant Produces Hardwood Panels in Many Faces **70**

New Marketing Concept for plywood is presented by Charles Miller, marketing specialist at University of Washington, at Plywood Manufacturers Institute meeting. **74**

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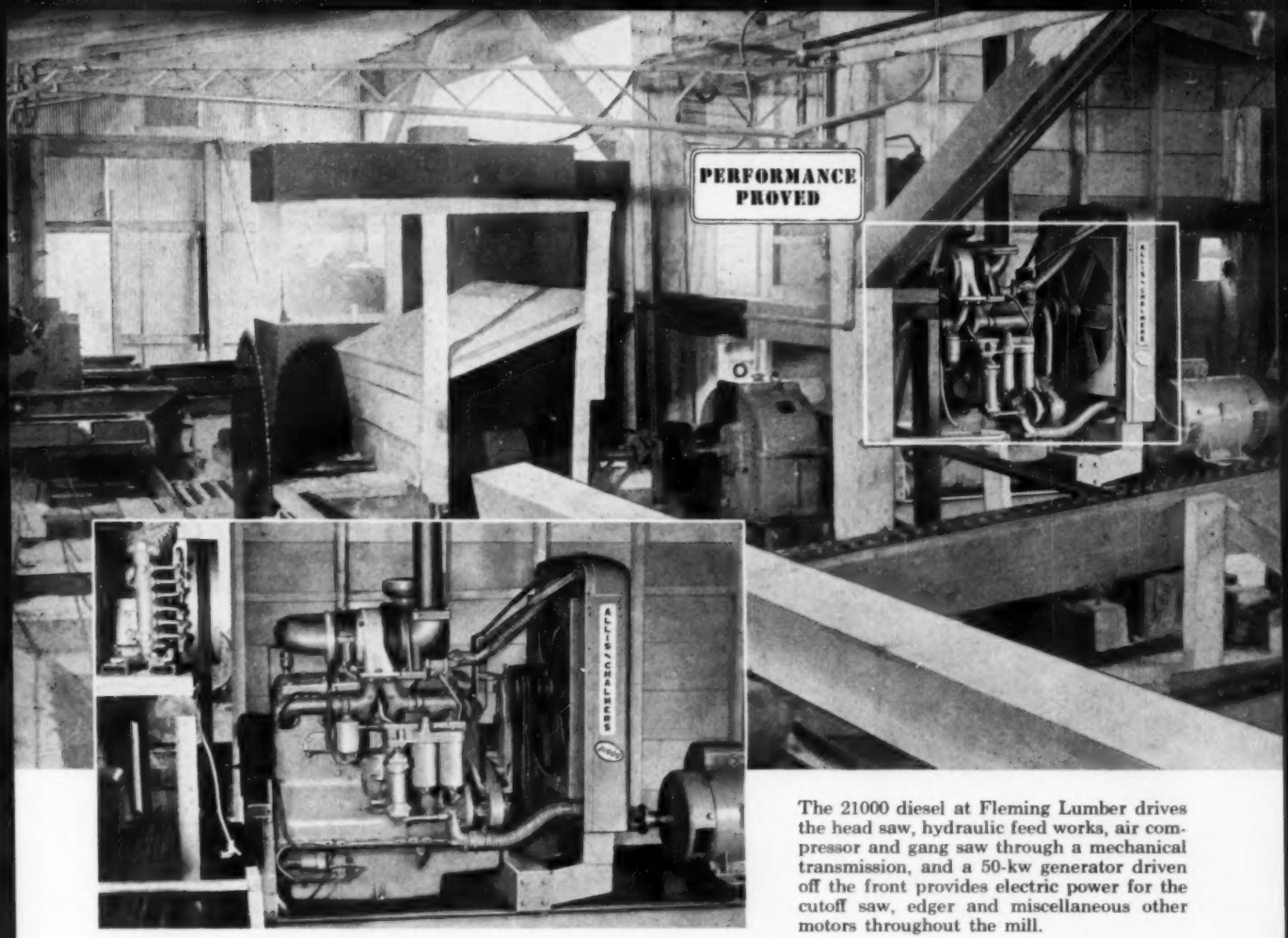


The 21000 diesel at Fleming Lumber drives the head saw, hydraulic feed works, air compressor and gang saw through a mechanical transmission, and a 50-kw generator driven off the front provides electric power for the cutoff saw, edger and miscellaneous other motors throughout the mill.

21000 diesel gives Fleming Lumber and Mercantile Company...

"Adequate power... with amazingly rapid recovery"

"Our 21000 engine has quite adequate power and amazingly rapid response and recovery under heavy loads — full cut on the 56-in. head saw," says J. F. McAllister, manager of Fleming Lumber Co., Minturn, Colorado.

"Low fuel consumption... maintenance nil"

"We are using less than six gallons of fuel per hour at 8200-ft elevation. Maintenance has been nil — just normal lube oil, fuel and air cleaner service."

"Excellent starting, even at 0 to 10 degrees"

"Winter temperatures here drop to 20° below zero fairly often, which means morning starting in the 0 to 10° range. Starting is excellent, particularly since it is necessary to turn the double reduction gear box, air compressor, generator and several accessory shafts in starting."

"...needless to say, we are completely satisfied,"

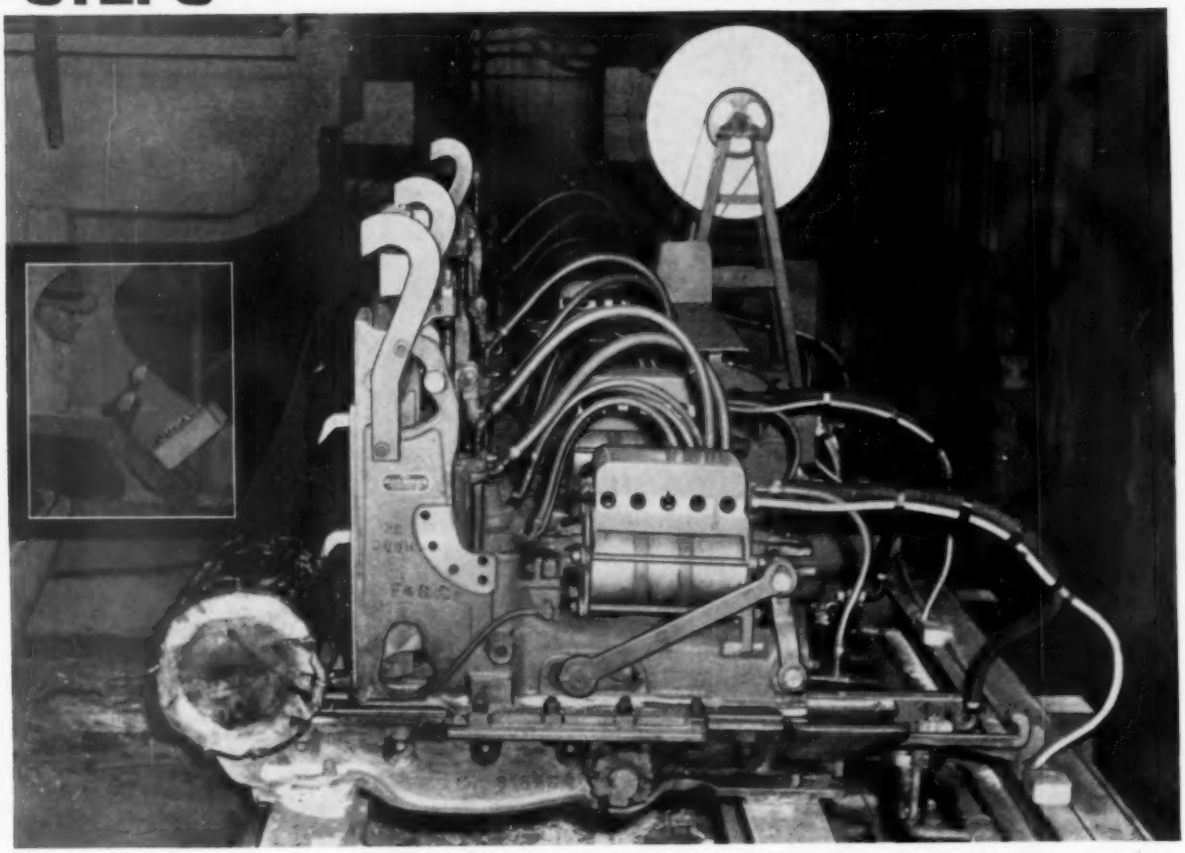
concludes Mr. McAllister. "Our Allis-Chalmers 21000 operates our complete mill with ease." If you want "performance proved" diesel advantages like these, see your Allis-Chalmers dealer for details. Allis-Chalmers, Milwaukee 1, Wis.

ALLIS-CHALMERS

***POWER* FOR A GROWING WORLD**

BC-32

STEPS UP PRODUCTION 15%



Accuracy of Cutting Uniform Lumber "Practically Perfect!"

Performance in the field counts! After a score of installations, here's what some users of Filer & Stowell's new Sawyer Operated Setworks have to say —

"The accuracy of the setworks is practically perfect . . . Our production has ranged as high as 15% above normal."

— John M. Tully, Vice-President,
Anderson-Tully Co.,
Memphis, Tenn.

"We have increased our lumber production 35%. In the manufacture of veneer flitches, we have gone from 40 to 60 per hour . . . Our sawyer does 95% of his sawing sitting on a swing seat."

— S. R. Williams, Plant Superintendent
Pierson-Hollowell Co., Inc.,
Lawrenceburg, Ind.

"Our maintenance record is excellent and far beyond our expectations."

— Milton Craft, President,
Chapman & Dewey Lumber Co.,
Memphis, Tenn.

"Our production has increased 500 to 600 feet per hour, with no maintenance or down time since installation."

— George L. Schoenemann,
Gen. Superintendent
W. T. Carter & Brother,
Camden, Texas

"We find that the accuracy of setting on this Carriage is by far superior to anything we have ever used, or have seen."

— W. L. McGehee,
McGehee Lumber Company,
Natchez, Miss.

For complete details, write for literature or to have Representative call.

FILER & STOWELL COMPANY

Since 1856
147 East Becher St., Milwaukee 7, Wisconsin

NOW!...JOINT ONLY HALF AS OFTEN WITH SIMONDS NEW *SI-CLONE* THIN PLANER KNIVES

New Premium Grade Steel at Regular Prices

Here, for the first time in many years, is a startling new development in Thin Planer Knives.

Simonds New Si-Clone Knives are made from a brand new kind of steel, developed by Simonds metallurgists. They not only stay on the job far longer than regular knives — *but require jointing only half as often!*

Tougher, more abrasion resistant, these new Si-Clone Knives have exceptional edge-holding qualities. They handle knots easily and produce a more uniformly smooth surface. And work equally well in all types of timber and any planer head location.

Furnished in perfectly balanced pairs, Simonds New Si-Clone Knives are now available in all popular sizes from your local Simonds Distributor's stock. Try them and see the money-saving difference.

INDUSTRIAL DISTRIBUTORS — THE RIGHT HAND OF PRODUCTION

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SAW AND STEEL CO.
FITCHBURG, MASSACHUSETTS

Get your local Simonds Distributor's — For Local Stocks — Local Speed — Local Skill

Factory Branches in Boston, Chicago, Shreveport, La., San Francisco and Portland, Oregon • Canadian Factory in Granby, Que. • Simonds Divisions: Simonds Steel Mill, Lockport, New York; Heller Tool Co., Newcomerstown, Ohio; Simonds Abrasive Co., Philadelphia, Pa. and Arvida, Que., Canada

The Lumberman
October, 1960

significant industry news

General Outlook . . .

CROSSETT NOT FOR SALE . . . Union Bag-Camp Paper Corp. has decided to not exercise its option to buy Crossett Co., Crossett, Ark., and P. F. Watzek, president of Crossett, has announced that stock of the company has been withdrawn from sale. A letter from the stockholders states: ". . . not only is the Union Bag-Camp matter closed but the entire subject of sale itself is also closed." Union Bag's decision to not buy was influenced by anti-trust proceeding started earlier this year against the large paper firm by the Federal Trade Commission, and the fact it was not able to arrange financing on terms satisfactory to Union Bag.

G-P BUYS PILOT ROCK LUMBER CO. . . . Georgia-Pacific Corp. moves into the eastern Oregon pine country with the purchase of Pilot Rock Lumber Co., for a reported $10.5 million. G-P acquires about 100,000 acres of timber and timberlands in Grant, Morrow, Umatilla and Union counties estimated to hold about 500 million board feet of timber. Manufacturing facilities include planing mills, dry kilns and a lumber plant south of Pendleton which produces more than 100,000 feet a shift.

MORE PROMOTION MONEY . . . Six federated associations of the National Lumber Manufacturers Association have acted favorably on a proposal to increase dues to the National Wood Promotion Program. The increase would be from 10 to 16 cents per thousand feet of lumber manufactured by subscribers. Approval comes from the American Walnut Manufacturers Association, Maple Flooring Manufacturers Association, Fine Hardwoods Association and National Oak Flooring Manufacturers Association. Directors of the West Coast Lumbermen's Association and the Northern Hardwood and Pine Manufacturers Association have voted to recommend acceptance of the increase by their members.

FOREST PRODUCTS EXHIBIT . . . The new Museum of History and Technology being constructed by the Smithsonian Institution in Washington, D. C., will include space devoted to the development of the forest products industry. Development will be traced from 1630 to the present. The period of 1900-1960 will predominate. Both manufacture and forestry will be dealt with. Carl A. Rishell, recently retired from the National Lumber Manufacturers Association and Timber Engineering Co., is serving as technical advisor for the project.

DEALERS PROMOTE WOOD . . . A newly-formed association of lumber dealers in Denver, Colo., even promotes wood in its name — W.O.O.D., Inc. The group plans a publicity program connected with National Forest Products Week, October 16-22. The organization grew out of a wood promotion committee appointed by the Denver Hoo Hoo organization. Its president is Clark R. Gittings, Gittings Lumber Co.

PUSH FOR FOREST PRODUCTS WEEK . . . Pacific Lumber Co., Scotia, Calif., has planned a cross-country air tour to help promote National Forest Products Week, October 16-22. The "Palco-Panorama" will consist of a two-week flight in a dozen states in the midwest, east and south, just in advance of Forest Products Week. The firm's Super Ventura airplane will carry a display of wood products of today, and the future, which will be set up for showings to lumber dealers, builders and architects.

More INDUSTRY NEWS on Page 8

Factory Branches in Boston, Chicago, Shreveport, La., San Francisco and Portland, Oregon • Canadian Factory in Granby, Que. • Simonds Divisions: Simonds Steel Mill, Lockport, New York; Heller Tool Co., Newcomerstown, Ohio; Simonds Abrasive Co., Philadelphia, Pa. and Arvida, Que., Canada

Combination Infeed for Fork and/or Straddle Truck.
Automatic Stacker with Grading Chain.
Receiving Hoist for Stickered Packages.
Out-bound Powered Rolls.
Stickering done even while Sticker is laying course.
Stick Slide and Stick Trough for unstacking.
Hopper for accumulation of Sticks from Unstacker.

Not a copy of the Conventional . . . but a Proven Product of our own . . .

The LAWSON Combination STACKER-UNSTACKER

a result of Lawson's Creative Engineering

Lawson's engineering staff is dedicated to create equipment that solves old, complicated problems with new, simplified design—engineering *by* lumbermen *for* lumbermen!

Lawson-engineered products continue to pace the field with simplicity of design. You gain, and should expect to gain, the advantages in labor saving with this type of equipment, but Lawson's creative engineering has made it possible to minimize maintenance through its patented, simplified, heavy-structural design. There are no complex, trouble-giving mechanisms — just well-conceived, well-executed and practical application of sound principles.

SHOWN IN THE PICTURE SERIES AT LEFT, A TYPICAL INSTALLATION AT THE CALION LUMBER COMPANY, CALION, ARKANSAS

CALL, WIRE, OR WRITE
for information, technical data, illustrated literature or the services of a trained engineer.
There's no obligation, of course.

LAWSON STACKER CO., INC.
P. O. Box 4813 • JAckson 7-3537
Memphis, Tenn.

MERCHANDISING PROGRAM OFFERED . . . Look magazine will offer this fall a merchandising program to help lumber dealers sell home improvement work. The program will offer free counsel by Look's merchandising executives on all phases of retail sales problems. The program will include advertising circulars, newspaper ad mats, radio spot commercials, art service and point-of-purchase sales kits.

HARDWOOD PLYWOOD IMPORTS OFF . . . Movement of hardwood plywood into the United States in the first half of 1960 totaled 573.7 million square feet vs. 620.3 million square feet in the same period of 1959, the Imported Hardwood Plywood Association, Inc., reports. Totals were off from all countries except Finland and Taiwan. Japan's total dipped from 389.2 million square feet to 372.5 million square feet. A sharp decline in June was a major factor. June totals nosedived 41%, from 134.7 million square feet in 1959 to 79.5 million square feet this year.

JAPANESE CUT EXPORT QUOTA . . . Japan Plywood Exporters' Association has announced a suspension of 40% on lauan plywood and 20% on indigenous plywood for the July-December period. Previous quota was 266 million square feet, with 203 million feet allocated to lauan and 63 million feet to indigenous. There was also a carry-over of 60 million feet from the first half.

G-P ACQUIRES SHEATHING PLANTS . . . Plywood Products Corp., Corvallis, Ore., and Inply Corp., Independence, Ore., two of the major plywood sheathing plants in the west, have been acquired by Georgia-Pacific Corp. G-P issued 75,500 shares of common stock for 100% of outstanding stock of the firms. No timber is involved.

FLAKEBOARD FURNITURE . . . Magic-Wedge is a new furniture line made of flakeboard which can be assembled in seconds without use of nails, glue or tools and requiring no hardware. It was invented by Robert Hyde, Syracuse, N. Y., and uses Westvaco Flakeboard manufactured by West Virginia Pulp and Paper Co. Close fitting wedges which interlock make possible the self-assembly. Products available include a bed with separate headboard, night table, desk, record cabinet and bookcase.

FIRM CONSOLIDATES . . . Oregon-Pacific Forest Products Corp. is the new corporate designation of Oregon-Pacific Lumber Co. and Oregon-Pacific Plywood Corp. of Portland, Ore. The former lumber and plywood companies will operate as divisions of the new corporation. Oregon-Pacific recently acquired control of large stands of western white spruce in north central British Columbia, has expanded its activity in the import market, and has diversified its services in marketing of hardboards, particleboards and prefinished panels.

B. C. FACES RAIL RATE HIKE . . . A proposed Canadian railroad rate increase that could amount to as much as 27% for interior British Columbia sawmills faces B.C. forest products producers. They hope to forestall the increase by offering alternative proposals. A committee representing all seven B. C. associations, with T. L. Sturgess, deputy minister of industrial development, as chairman, is working out a formula. One plan is to reduce the rate on coast rail shipments so as to achieve equality with interior mills and thus restore over-all rates to the 1955 level, as sought by the railroads. Another is to load more lumber on cars, increasing rail revenue and saving the industry money.

More INDUSTRY NEWS on Page 10

This plant is 100% new

–and 100% Union Oil

Mr. Bill Hengen, mill superintendent, Arcata Redwood Company, Orick, Calif.

"This mill at Orick contains the most modern equipment available. Everything's new here. Everything except Union Oil. It's been with us for years.

"But even Union Oil has some new jobs. The lubricating systems for the conveyers, the edgers, and the trimmers are fully automatic. Injectors automatically spray lubricants on all lube points at specified time intervals. We use Red Line Turbine Oils to give us best results in these systems.

"We're 100% Union Oil in the rest of our equipment, too. It's a habit that saves us expensive downtime. There hasn't been a single bearing or motor failure attributable to lubrication in the four years that we've used Union Oil exclusively in our other mill. We know we can depend on these lubricants—even in the toughest conditions. I don't know what more could be said."

There's a lot more that could be said, but why not let your nearby Union Oil representative tell you? Call him today. He'll be glad to arrange a comprehensive lubrication survey of all your equipment. Once you try Union Oil, you'll see why experienced sawmill men like Bill Hengen agree it's *the finest*.

UNION OIL COMPANY OF CALIFORNIA 76

UNION OIL CENTER, LOS ANGELES 17, CALIFORNIA

TIMBER WEALTH IN ARIZONA . . . Arizona's 17 million acres of commercial and non-commercial timber has barely been touched, according to a study made by the Arizona Development Board and the forestry division of Arizona State College. More than 99% of the present timber used is sawmilled; there is virtually no secondary manufacture. Opportunities exist for plywood, using aspen, pole processing, naval stores and numerous other secondary operations.

PIGGYBACK AUTHORIZATION . . . Effective August 29, the Southern Pacific has published authorization for piggyback shipments — substitution of two highway trailer vans for one freight car, MARKETRENDS, forest industry market letter published by MILLER FREEMAN PUBLICATIONS, reports. SP says carload rates will apply on lumber, with the shipper to load and unload vans. If the customer has a spur track, vans will be placed at his plant for unloading. Otherwise, they will be placed in the vicinity of a team track.

UNITIZED PLYWOOD PACKAGES . . . Four Pacific Northwest plywood sheathing mills are offering unitized packages of plywood with a uniform number of pieces for each thickness. The mills, all represented by Vancouver Plywood Co., Vancouver, Wash., are Hub City Plywood Corp., and Three Sisters Plywood, Inc., Albany, Ore.; White City Plywood Co., White City, Ore.; Port Plywood Co., Astoria, Ore. Units are pre-counted for simple inventory check and are easy to handle.

On the Plant Front . . .

MORE COMPETITION . . . American Stramit Co., Pasco, Wash., is ready to start production of a structural insulation board produced from compressed straw. Boards are made in 4-foot widths and in lengths from 8 to 12 feet, and 16-footers available on special order. Thicknesses are 1½, 2 and 2½ inches. The straw is compacted at 480° at which temperature resins in the straw bond it. The mat is covered by ivory paper or tarpaper.

ALBERTA PROJECT PLANNED . . . Canadian Forest Products, Ltd., major British Columbia forest products producer, plans establishment of an integrated operation in Alberta at Grande Prairie, 310 miles northwest of Edmonton. CFP has taken an option on shares in Grande Prairie Pulp Co. which holds first negotiating rights on extensive timber rights. First step in a planned long term development would be establishment within 18 months of sawmill, plywood and hardboard plants, with a $50 million pulp mill to follow. CFP has acquired the former Northern Plywood, Ltd., plant at Grand Prairie. CFP says lack of sufficient uncontrolled timber and hostility towards tree farm licenses in B. C. prompted the move to Alberta.

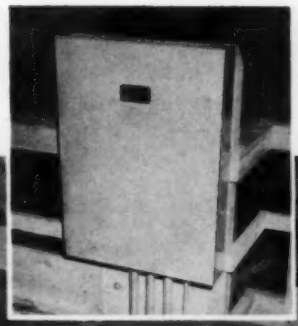
PLYWOOD PLANT PURCHASED . . . Stover Plywood Corp., New York City, has purchased land, plant, equipment and inventories of Atlas Plywood Corp.'s Greenville, Me., plant. Production at the plant, primarily birch flush door panels, will be increased. Officers of the new firm are John S. Stover, president and treasurer; Thomas F. Dillon, vice-president and secretary; Reuben W. Hager, vice-president. Oakley Jenks continues as plant manager.

BOARD PLANT UNDER CONSTRUCTION . . . Production is anticipated early in 1961 at the new woodfiber plant of Dierks Forests, Inc. at Craig, Okla. The plant will turn out 250,000 square feet of board a day using chips from Dierks' plants in Wright City, Okla., and Mountain Pine and Dierks, Ark. Gene H. Thompson is sales manager of the plant.

This memory device gives

YEARS OF TROUBLE-FREE SERVICE

ask our customers



PORTLAND IRON WORKS PRE-SELECTOR

FOR MILL OR SMOOTH END TRIMMERS

You can increase your trimmer output 30% with the memory power of the Portland Iron Works Pre-Selector. In addition, its accuracy delivers 10% more marketable lumber from your raw material supply.

Your regular mill electrician can install it over a week-end. He needs no special training to understand its circuit structure.

When you install the Portland Iron Works Pre-Selector you are assured of trouble-free operation.

Call or write us for details and location of nearest installation to check these money-making facts.

PORTLAND IRON WORKS INCORPORATED

Experience is our best designer

1335 N.W. Northrup Street
Portland 9, Oregon
CApitol 7-1107 • Teletype PD565

Brawny Fruehaufs Go Everywhere!

There's an old lumberjack saying—"sky, wide and crooked". It means "everywhere" and it fits rugged Fruehauf Trailers like it was coined for them. Whether you are toting wood chips, hauling Ponderosa or Douglas out of the back country, or trucking finished lumber, there's an economical Fruehauf ready to handle your job at less cost-per-mile.

There is a wide choice of models for both on-highway and off-highway hauling, plus logging truck equipment to fit your individual needs. So . . . whether you are at timber line or mill site, you can put a rugged Fruehauf to work for you with confidence.

And there's always a Fruehauf Branch close by, for instant service and replacement parts. Fruehauf facilities cut costly down time, boost your profits. The Fruehauf reputation, built over 45 years of serving you, is your best assurance of complete satisfaction.

• • •

Fruehauf rugged corrugated-steel wood chip units are available in lengths up to 40-feet. Mounted on tandem-axles these drop frame units have rear gate dumping for ease in handling chips.

Heavy-Duty and Over-The-Road Loggers

Closed Vans For Finished Products

Lightweight, Rugged Platform Trailers

FRUEHAUF TRAILERS

For Forty-Five Years—More Fruehauf Trailers On The Road Than Any Other Make!

World's Largest Builder of Truck-Trailers

FRUEHAUF TRAILER COMPANY

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SALES AND SERVICE: Los Angeles • Oakland • Fresno • W. Sacramento
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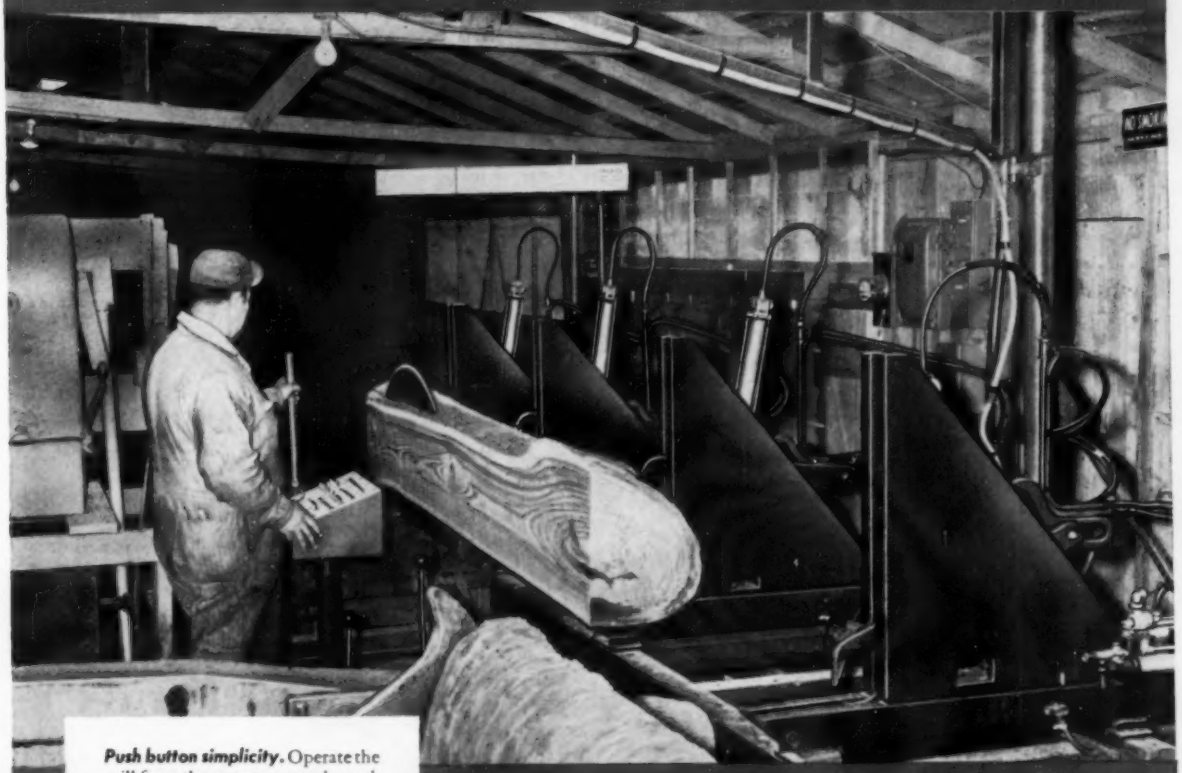
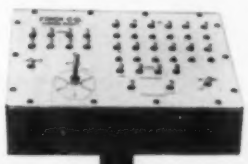
SAVE TIME, MANPOWER AND MONEY



Push button simplicity. Operate the mill from the remote control panel. It's as easy as flicking a wall switch. Does the work of two or three men.



FRICK'S NEW ELECTRO-PNEUMATIC REMOTE-CONTROL SAWMILL

• A remotely-controlled sawmill carriage, equipped with electrically-operated air and hydraulic cylinders, has been designed by the Frick Company, Waynesboro, Penna.

The new automatic carriage, which eliminates the work of several men, saves time and money, yet operates with push-button simplicity.

Designed principally for mill operators who remain . . . for reasonable lengths of time . . . in permanent locations where electricity is available, the new carriage requires an air compressor with a range of 7½ to 10 horsepower capacity, supplying air at 100 pounds per square inch pressure. This air, controlled electrically, produces various actions that formerly were done with manually operated levers.

Push-button operations include: operating two position tong-dogs, tapering head block knees for positioning the log for the best cut, advancing log for cut desired, unloading last board or cant from the carriage and receding the head block knees to receive the next log.

The set works control panel, which activates forces from 100 to 1500 pounds, operates as easily as an electric light wall switch, providing a range of thickness of cut from ⅜ inch to 2 inches in increments of ⅛ inch.

Frick offers a completely automatic sawmill package that includes a live deck for conveying logs to the carriage, a stop and loader which kicks the log on the carriage and a hydraulic log turner for turning the log.

Other equipment available from Frick Company: resaws, gang saws, debarkers and chippers.

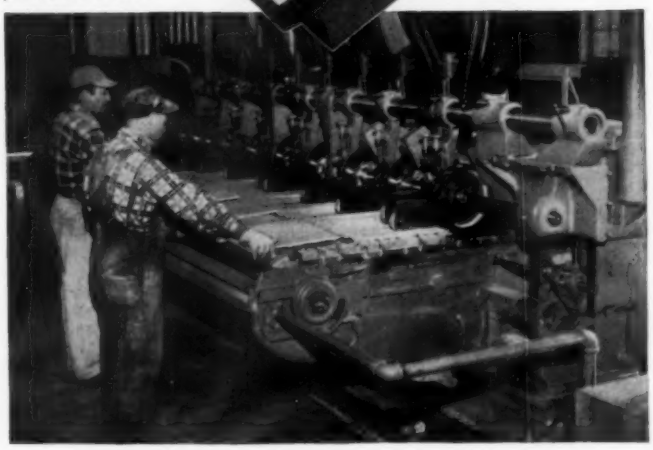
FRICK COMPANY
Waynesboro, Pennsylvania

FRICK

Builders of Sawmills Since 1875

MORE WEIGHT where it's needed means continuing accuracy in Greenlee Double-End Panel Machines

Slat-bed multiple cut-up saws for cutting flat and curved particle board.



You need a rigid massive base, rugged columns, beefy beams and extra heavy hold-downs to assure square, accurate panel cutting with multiple heads at high spindle speeds and fast feed rates. The Greenlee panel machine base is a heavy ribbed **one-piece,** rigid gray-iron casting which alone weighs 1½ tons. It's built rigidly to bridge and absorb much of the strain and stress caused by uneven floors and sub-structures —it soaks up shock and vibration. Due to this same rigidity the base can easily be leveled as required. Investigate Greenlee's "heavy-weight" panel machines for 'round the clock accuracy in sizing, splitting, and grooving. Write for information.

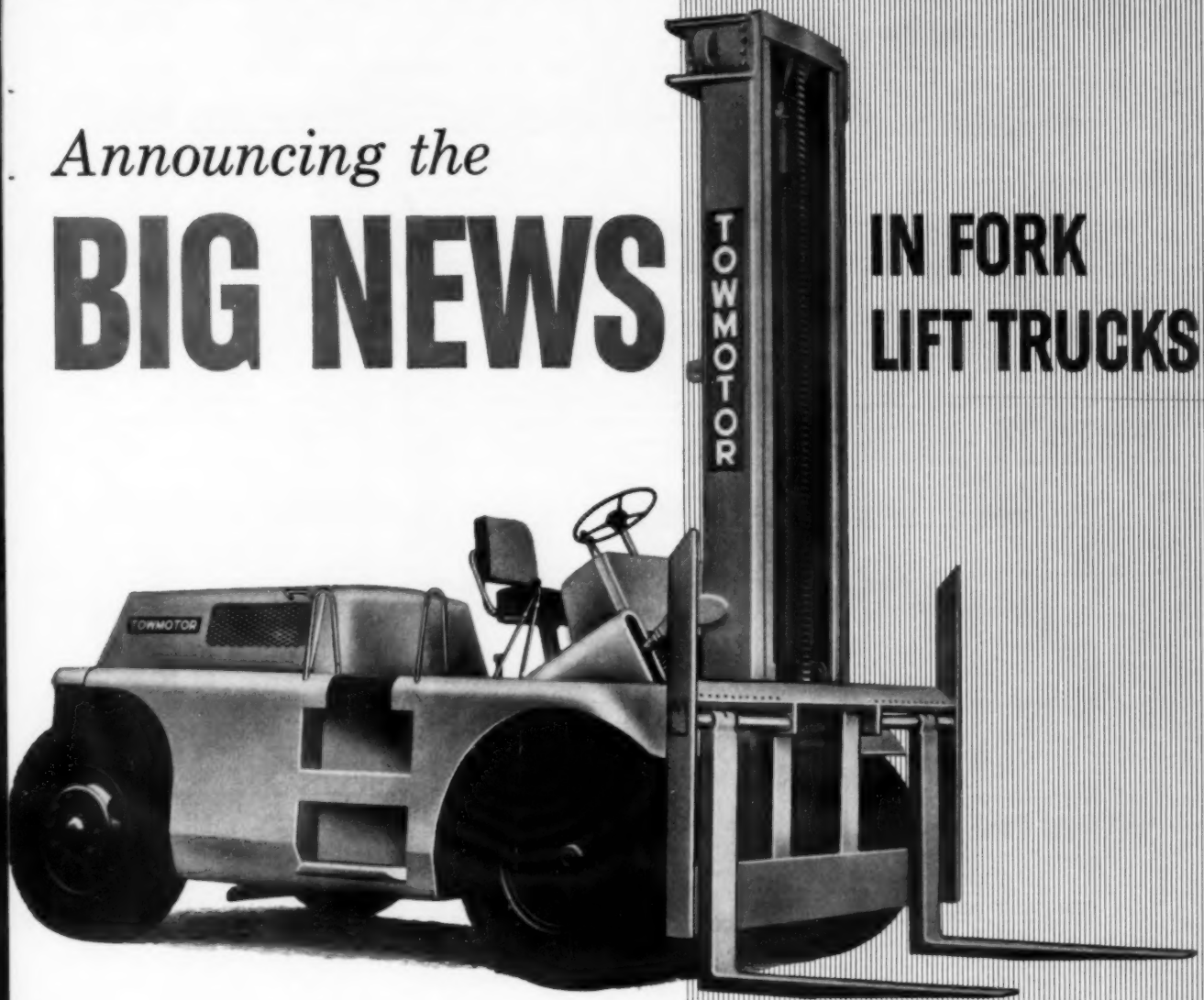
GREENLEE MAKES MACHINES FOR PLANING, SHAPING, TENONING, MORTISING, BORING AND SAWING

GREENLEE®
BROS. & CO.

1923 TWENTY-FIRST AVE.
ROCKFORD, ILL.

Announcing the

BIG NEWS IN FORK LIFT TRUCKS



If you unload, move, stack and load heavy materials be sure to get information on the new big-capacity Towmotor "Monarch" Series Fork Lift Trucks. They're as new . . . all-new . . . as they look!

All eight of the new "Monarch" Series models are built to handle your roughest and toughest jobs . . . yet they are easy to handle . . . and feature—

- New High-Traction "Low Profile" Styling
- New Extra-Visibility Mast Design
- New Equalized Weight Distribution
- New "Unitized" Frame and Body Construction
- New Up-Dated Easy-Operation Features

They all include many more engineering "firsts" described in new Towmotor "Monarch" Series bulletins covering models with 5 to 12 ton load capacities. For specifications, write Gerlinger Carrier Co., Dallas, Oregon.

TOWMOTOR

"MONARCH"

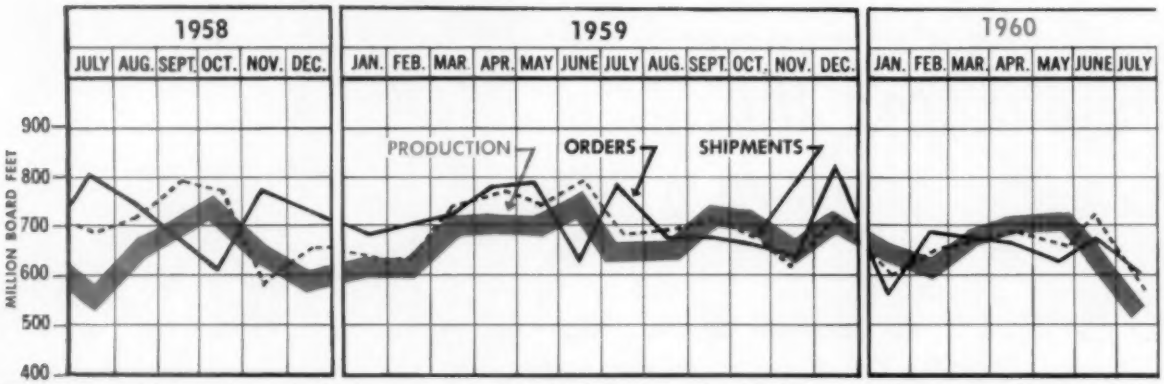
AN ALL-NEW SERIES OF HEAVY DUTY FORK LIFT TRUCKS BY

TOWMOTOR THE ONE-MAN GANG® -GERLINGER

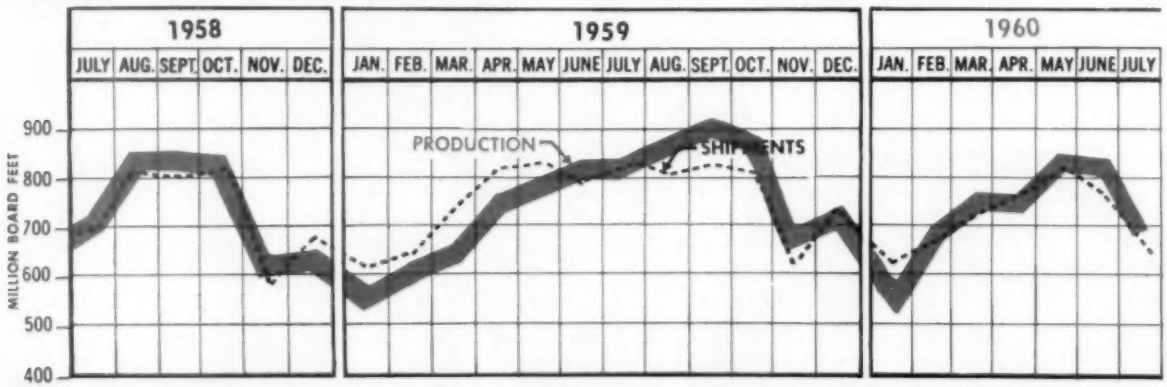
Gerlinger Carrier Co., Dallas, Oregon, is a subsidiary of Towmotor Corporation

FORK LIFT TRUCKS, CARRIERS AND TRACTORS SINCE 1919

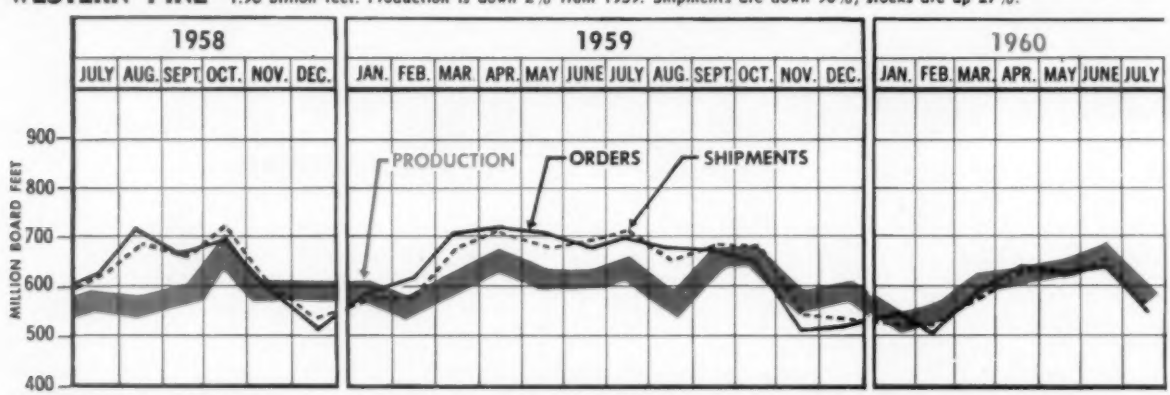
INDUSTRY TRENDS



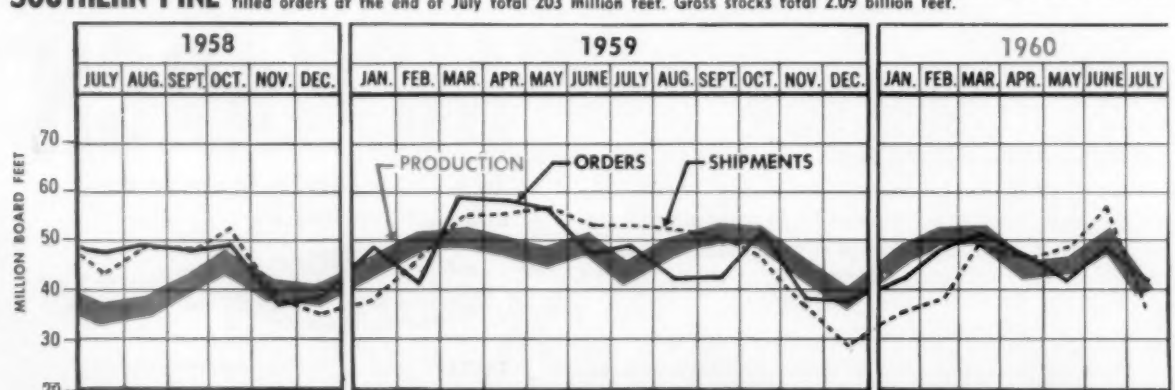
DOUGLAS FIR Lumber production for seven months totals 4.84 billion feet, orders 4.55 billion feet, shipments 4.74 billion feet. Unfilled orders at the end of July total 518.6 million feet. Inventory at the end of July totals 1.1 billion feet.



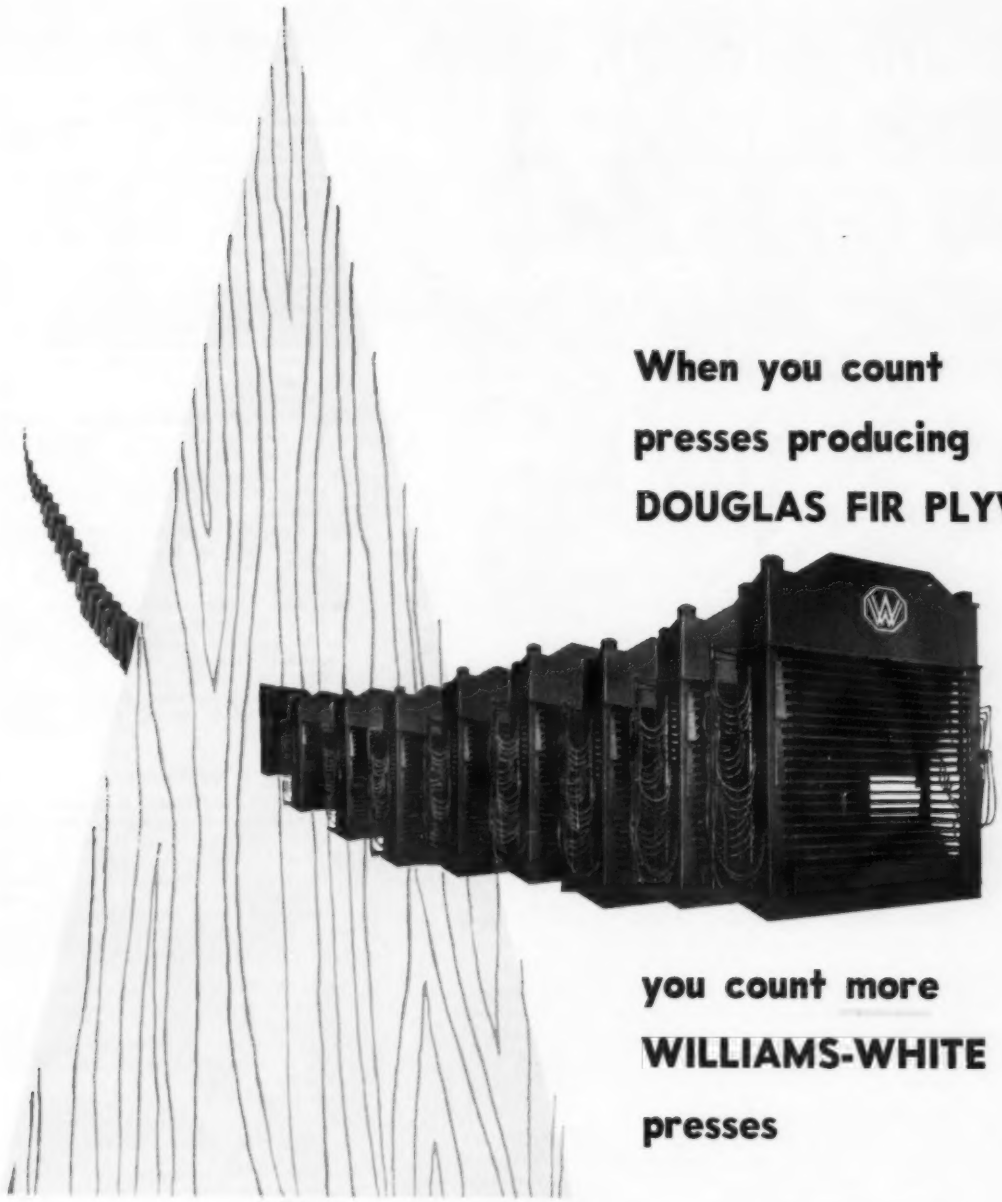
WESTERN PINE Lumber production for seven months totals 5.16 billion feet, shipments 5.01 billion feet. Stocks at the end of July total 1.96 billion feet. Production is down 2% from 1959. Shipments are down 90%, stocks are up 27%.



SOUTHERN PINE Lumber production for seven months totals 4.23 billion feet, shipments 4.07 billion feet, orders 4.08 billion feet. Unfilled orders at the end of July total 203 million feet. Gross stocks total 2.09 billion feet.



REDWOOD Lumber production for seven months totals 345.9 million feet, shipments 311.2 million feet, orders 318.2 million feet. Unfilled orders at the end of July total 68.7 million feet. Gross stocks total 403.2 million feet.



When you count

presses producing

DOUGLAS FIR PLYWOOD

you count more

WILLIAMS-WHITE

presses

Brute strength and reliable, accurate performance keep Williams-White presses on the job through the heaviest production schedules. Backing this ultimate in performance and dependability is a history of 106 years of machine engineering experience. It is this solid reputation that helps Douglas Fir Plywood producers choose Williams-White presses.

When you select the leading example of multiple-opening hot plate presses, you are buying maximum production with a minimum of down-time.

For illustrated details about Williams-White custom-built presses, write today for Bulletin Number 200-A. It's free.

107th year

WILLIAMS-WHITE & CO • 600 Third Avenue, Moline, Ill.

the measure of Performance Reliability for more than a century

SALES AGENTS: Portland, Oregon: Allied Northwest Machine Tool Corp.; **Seattle:** Perine Machinery & Supply Co., Inc.

REDWOOD orders at the end of July total 68.7 million feet. Gross stocks total 403.2 million feet.

THIS "BACKSCRATCHER" CAN BE OPERATED WITH TELEVISION TOO!

When EDERER engineers developed this giant "backscratcher" to move piles of hog fuel, they put the operator in a fully enclosed cab which moves with the rake itself. Later, at the request of a mill operator, another of these cranes was "job-engineered" to operate from remote controls in another room with closed circuit television providing "eyes" for operating the crane.

The rake on this crane operates hydraulically from the trolley. The rake can push or pull; reaches from the floor to 20 feet in the air; has a 17-foot horizontal reach with a seven-foot stroke. The rake will rotate 280 degrees. Operation may be from the cab—or as described here—by television-guided remote control.

EDERER "job-engineering" has provided specialized equipment for countless such unusual requirements in the plywood and wood products industries. Let's talk with you about your job requirements.

EDERER Cranes

EDERER "job-engineering" helps expand production in an expanding industry.

358C59

EDERER ENGINEERING COMPANY

2933 FIRST AVENUE SOUTH • SEATTLE 4, WASHINGTON

EXPORT DIVISION: 301 Clay Street, San Francisco 11, California

Since 1901

"JOB-ENGINEERING" CRANES AND HEAVY EQUIPMENT

CALENDAR OF COMING EVENTS

OCTOBER

National Hardwood Lumber Association, annual meeting, October 3-6, Hotel Sherman, Chicago, Ill.

Hardwood Plywood Institute, October 5-7, Dinkler Plaza Hotel, Atlanta, Ga.

Architectural Woodwork Institute, October 11-14, Sheraton Park Hotel, Washington, D. C.

American Forestry Association, October 16-19, Edgewater Gulf Hotel, Edgewater Park, Miss.

National Forest Products Week, sponsored by Hoo-Hoo International Wood Promotion Committee, October 16-22.

National Safety Council, October 17-20, Chicago, Ill.

Forest Products Research Society, Northern California Section, October 21, Stockton Hotel, Stockton, Calif.

Forest Products Research Society, Inland Empire Section, October 21-22, Bend, Oregon.

Canadian Wood Development Council, annual meeting, Oct. 23-25, LeManoir Saint-Castin, Lac Beauport, P. Q., Canada

Canadian Institute of Forestry, Oct. 24-27, annual meeting, Quebec City, Que.

Pacific Logging Congress, Oct. 26-28, annual meeting, Hotel Vancouver, Vancouver, B. C.

Railway Tie Association, Oct. 26-28, annual meeting, Statler Hilton, Cleveland, Ohio.

NOVEMBER

American Forest Products Industries, Inc., Nov. 2-3, annual meeting, Shoreham Hotel, Washington, D. C.

National Lumber Manufacturers Association committees and board of directors annual meeting, November 7 - 10, Shoreham Hotel, Washington, D.C.

Forest Industries Radio Communications, Nov. 10-11, Willard Hotel, Washington, D. C.

American Hardboard Association, Nov. 10-11, annual meeting, Drake Hotel, Chicago, Ill.

Society of American Foresters, Nov. 13-16, annual meeting, Sheraton Hotel, Washington, D.C.

Southern Sash & Door Jobbers Association, Nov. 13-15, annual fall meeting, The Greenbrier, White Sulphur Springs, W. Va.

National Wooden Pallet Manufacturers Association, 4th Annual Wooden Pallet Manufacturing and Promotion Clinic, November 14-15, U. S. Forest Products Laboratory, Madison, Wis.

Southern Woodwork Association, fall meeting, Nov. 16-17, Henry Grady Hotel, Atlanta, Ga.

DECEMBER

Western Forestry & Conservation Association, annual conference, December 7-9, Empress Hotel, Victoria, B. C.

Wirebound Box Manufacturers Association, annual meeting, December 8-9, Sheraton Blackstone Hotel, Chicago, Ill.

Red Cedar Shingle Bureau, annual meeting, December 9, Olympic Hotel, Seattle, Wash.

California Redwood Association, board of directors' meeting, December 12, 576 Sacramento St., San Francisco, Calif.

National Oak Flooring Manufacturers Association, annual meeting, December 13-14, Hotel Peabody, Memphis, Tenn.

MODERN WESTINGHOUSE ELECTRICAL SYSTEMS KEEP LUMBER ON THE MOVE!

WESTINGHOUSE PROGRESSIVE AUTOMATION CAN HELP YOU BUILD A COORDINATED SYSTEM TO STEP UP PRODUCTIVITY, PROFITS

Your production planning may call for new facilities or for modernization of existing mills. Productivity and profits, in either event, depend upon two things . . . minimizing downtime, and producing lumber at lowest possible cost-per-thousand board feet. How well you reach these goals depends heavily on more automatic production.

Westinghouse is ready now to help you plan economical steps to achieve the objective of more automated production. Westinghouse *Progressive Automation* is the method . . . a practical, step-by-step method which starts with the modern Westinghouse controls, motors and drives at work in lumber mills today.

Through this plan, you add other coordinating controls which are compatible with those previously installed. In this way you are building a coordinated system—always ready for the next step, but always realizing today's production goals. Westinghouse, your one source for all electrical equipment and gearing, is ready to work with you on this plan. Let us know your objectives. Call your Westinghouse representative for details on how we can help you.

J-96148-1

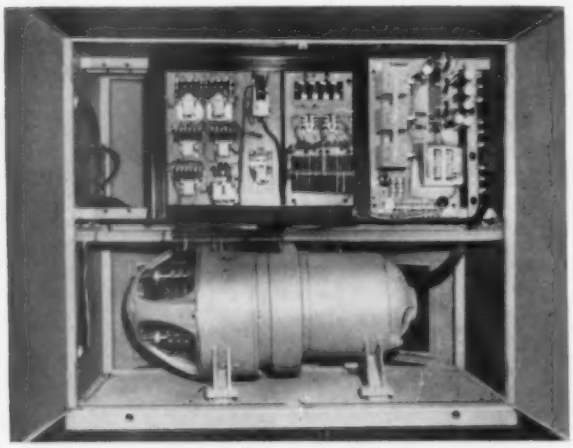
YOU CAN BE SURE...IF IT'S Westinghouse

RELIABLE, MAINTENANCE-FREE WESTINGHOUSE CONTROLS

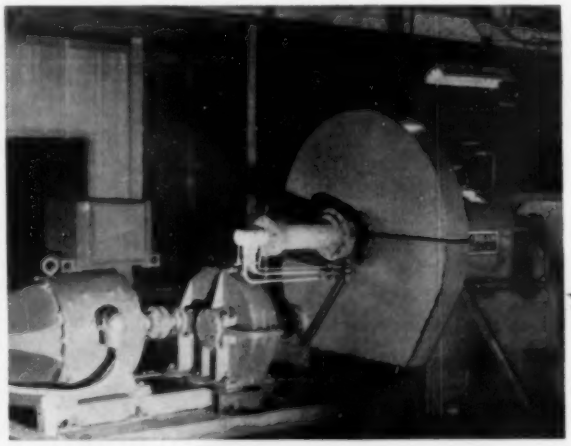
Forward-looking lumber mills are today making important cost savings with automatic control systems. These systems help use man power efficiently . . . reduce manual operations; provide more time to select and grade lumber.

MAGAMP DRIVE CONTROLS—are a step forward in the use of adjustable-voltage d-c drives to obtain regulated drive speeds for machines and processes. Static-design Magamp has no moving parts nor electronic tubes requiring periodic replacement . . . thus offers the ultimate in reliability.

PLANER-FEED
Magamp controls the combined planer-feed feed-table drive, a 40-hp, adjustable-voltage d-c drive which delivers a high production rate over a wide speed range, independent of loading.



VENEER LATHE—A Westinghouse 75/100-hp d-c motor drives veneer lathe through a single reduction gear unit with Magamp control. Five years' experience emphasizes simplicity of controls, ease of operation and negligible maintenance. Automatically controlled constant veneer sheet speed is available over a wide range.



LOG CARRIAGE
Magamp regulation of four log carriage drives at Kirby Lumber Corporation assures smooth, fast operation and results in maximum production with exceedingly low maintenance and operating costs. Original production estimates were exceeded by 15%.

DYNAC® ELECTRIC BRAKING—brings squirrel-cage and wound rotor motors to a stop smoothly and rapidly by applying d-c current to the stator winding. The 7-foot headrig at Plum Creek Logging Company, driven by a 200-hp wound rotor motor, is stopped in 23 seconds by DynAC . . . faster if desired. DynAC affords such advantages as adjustable braking torque up to 8 times rated torque, very smooth stop and no reversals.

J-96148-2

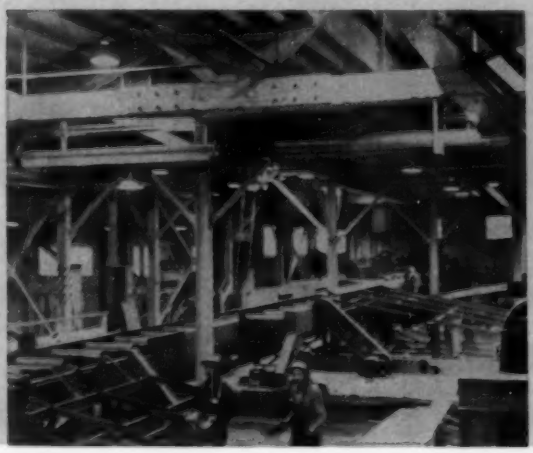
...SURE STEPS TO MORE EFFECTIVE AUTOMATION!

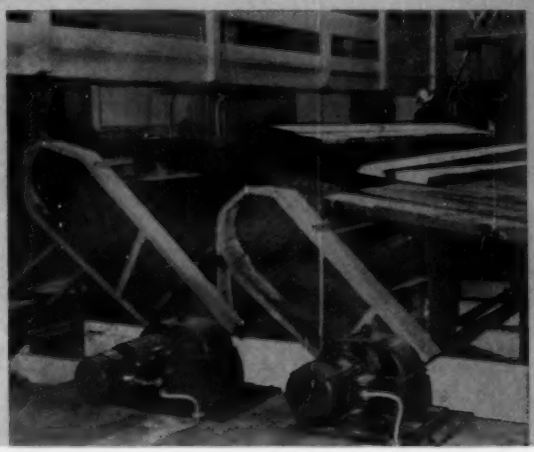
WESTINGHOUSE CONTROL BOARD—controls many log operations. This control lets the operator handle many operations such as log haul, cutoff saw, log stops and log decks from one point.

MODERN MERCURY VAPOR LIGHTING—brought savings of $6000 per year in lighting and maintenance costs. Mercury vapor lights at ceiling height with extra light provide an abundance of light around machines.

'ROUND-THE-CLOCK reliability—from Westinghouse gearmotors which drive chains ahead of resaw. Inspection of these units is easy. New Westinghouse Moduline* design offers modular construction for changeovers and versatility. Motocylinders, for a push, thrust or turning motion, are used on sweeps, jump chains, gates, log dogs, lumber stops, arms and kickers.

*Trade-Mark





J. NEILS LUMBER CO. SLASHES DOWNTIME...LOWERS PRODUCTION COSTS

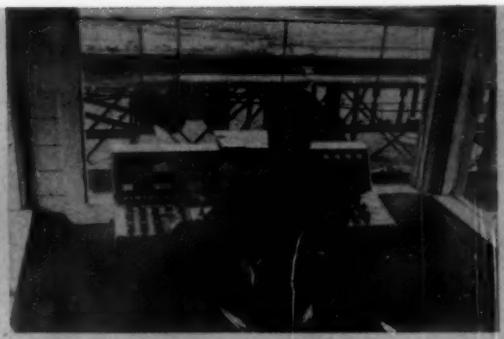
Design, construction and operation of this sawmill are all aimed at minimizing maintenance and repairs. J. Neils provided physical layout and machinery to allow maximum recovery of higher grades of lumber; also kept operation costs and maintenance of the mill at a bare minimum.

J-96148-3

YOU CAN BE SURE...IF IT'S Westinghouse

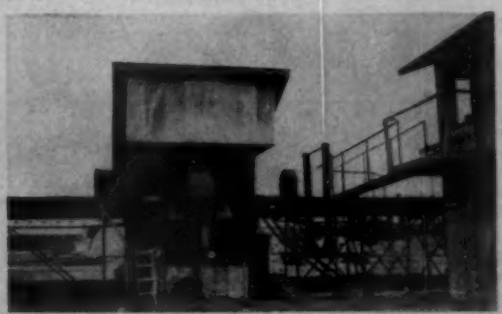
MODERN WESTINGHOUSE ELECTRICAL SYSTEMS

RUGGED LIFE-LINE® "A" MOTORS—drive log conveyor chain and cutoff saw. Here is the grueling service the famed Life-Line "A" thrives on. Extra-high capacity for changing and unusual load demands, high starting torque, and a rugged, balanced design overall assure continuously high performance. New fortified insulation gives protection against moisture and contamination.



WESTINGHOUSE CONTROLS—on barker operator's control station make best use of man power . . . one man runs the entire operation. Station is separate from barker and elevated to give unobstructed view of barker and all chains carrying logs.

WESTINGHOUSE MOTOCYLINDER—eliminates costly expense of maintaining steam and air cylinders. Motocylinder produces a smooth, controlled push, requires only one power cable, and is easy to install. Totally enclosed design gives protection against wet atmospheres. Equipment is employed here with a deck stop loader.



WESTINGHOUSE MOTOR—an 85-hp Life-Line "A" induction motor directly drives a 43-inch ring-type mechanical barker.

AT PLUM CREEK LUMBER COMPANY'S NEW PABLO MILL...

Modern operations facilitate lumber handling. Westinghouse band mill and resaw motors, control centers, large motor control, panelboard, switchboards, planer drive and lighting make possible high operating efficiency.

J-96148-4

YOU CAN BE SURE... IF IT'S Westinghouse

Archie Knauss, Seasoning Expert, Retires

The influence of Archie Knauss in the development of standards on lumber seasoning, for glued laminated structures and for drying of veneers, will be of lasting importance to the forest products industries. Long experienced in both private industry and with the forest service, Mr. Knauss retired from the Pacific Northwest Forest & Range Experiment station on July 22.

ARCHIE KNAUSS

He first operated the 35 dry kiln installation at Vernonia, Ore., many years ago and was the first to prove out internal fan systems for dry kilns. He was one of the originators of the dry kiln courses sponsored by the Forest Products Laboratory.

The plywood industry is indebted to him for his work in overcoming early veneer drying problems at Harbor Plywood plant in Aberdeen, Wn.

In 1943 he headed up studies on glued laminating of ship timbers and authored the first publication on glued laminates. His white speck studies of cull logs made at Bohemia Lumber Co., Culp Creek, Ore., a few years ago, was the most extensive study ever made for recovery of such logs.

Since 1946, when he transferred to the Forest Utilization Service in Portland, Ore., Mr. Knauss was particularly active in dry kiln cooperative work with the industry to interpret Forest Products Laboratory seasoning into practical application for the industry.

•

Russians Boost Softwood Sales in Britain

For the first time since 1937 the Russian sales of softwood lumber to Britain have reached 800,000,000 f.b.m. Contracts closed by the end of June for deliveries in 1960 had reached the total of 820,000,000 feet. Total contracts placed for softwood lumber with all countries by the U.K. had also reached a record at that stage, being 3,656,000,000 feet.

Selling is also at record levels this year. In the first six months the sales were 1,580,000,000 feet, showing a gain of 12 percent over the first half of 1959.

•

New Board Group

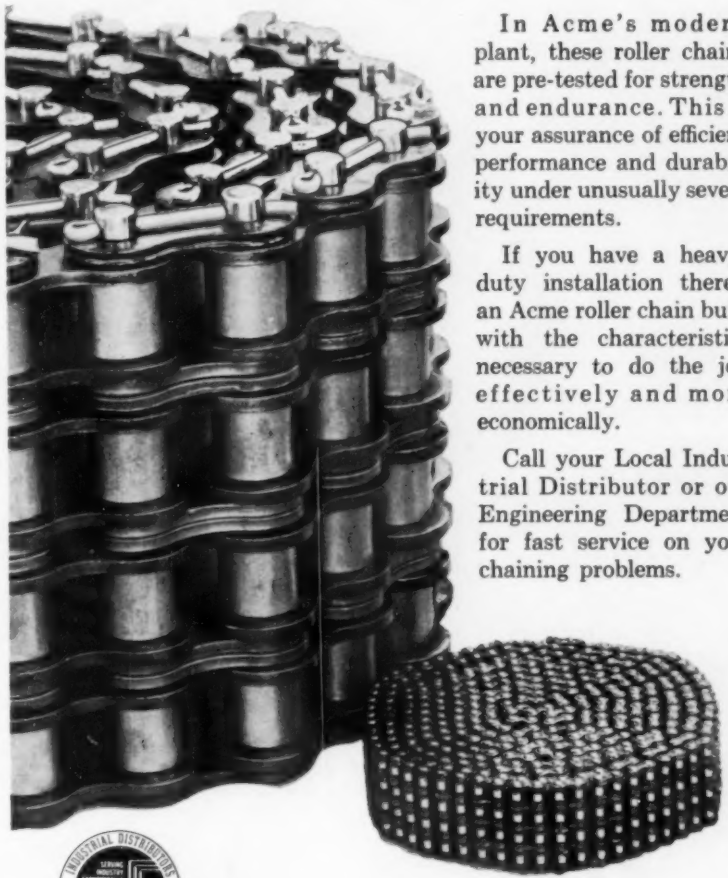
The Finnish Particle Board Association has been formed by leading manufacturers of particle board in Finland to help improve their product and increase exports.

ACME

Large Pitch Chain

are "ENDURANCE TESTED" for Heavy Duty Applications

Here's a chain capable of withstanding the severest of abuse and punishing shock loads. Their glass-hard wearing surfaces and rugged heat treated links give you dependable performance under conditions far too grueling for ordinary chains.



In Acme's modern plant, these roller chains are pre-tested for strength and endurance. This is your assurance of efficient performance and durability under unusually severe requirements.

If you have a heavy-duty installation there's an Acme roller chain built with the characteristics necessary to do the job effectively and more economically.

Call your Local Industrial Distributor or our Engineering Department for fast service on your chaining problems.

INDUSTRIAL DISTRIBUTORS SERVING INDUSTRY ECONOMICALLY THE RIGHT HAND OF PRODUCTION

Acme Chain Corporation HOLYOKE MASSACHUSETTS

Write Dept. 33-P for new ill. 100 page catalog with engineering section.

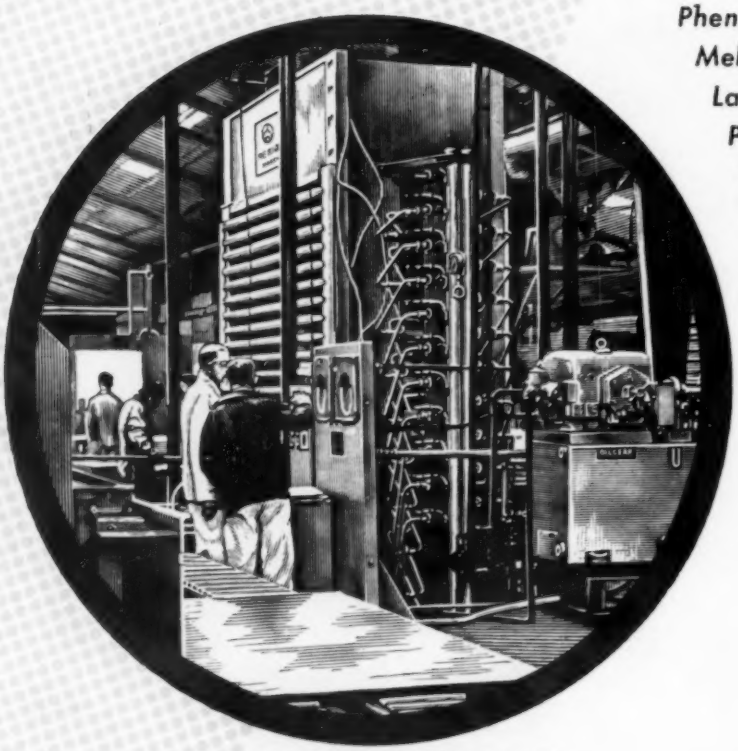
RELIABLE CHAIN DRIVES FOR ALL INDUSTRIES

ROLLER CHAINS, SPROCKETS, CONVEYOR CHAINS, FLEXIBLE COUPLINGS, ATTACHMENTS. (Special and Standard)

MORE AND MORE DEMANDS FOR

MEIKI HOTPRESSES

for
Hard Vinyl Sheets
Phenol
Melamine
Laminates
Particle Boards
Textile Boards
Overlay
Honeycomb
Plywood



MEIKI PRESS WORKING AT
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MEIKI

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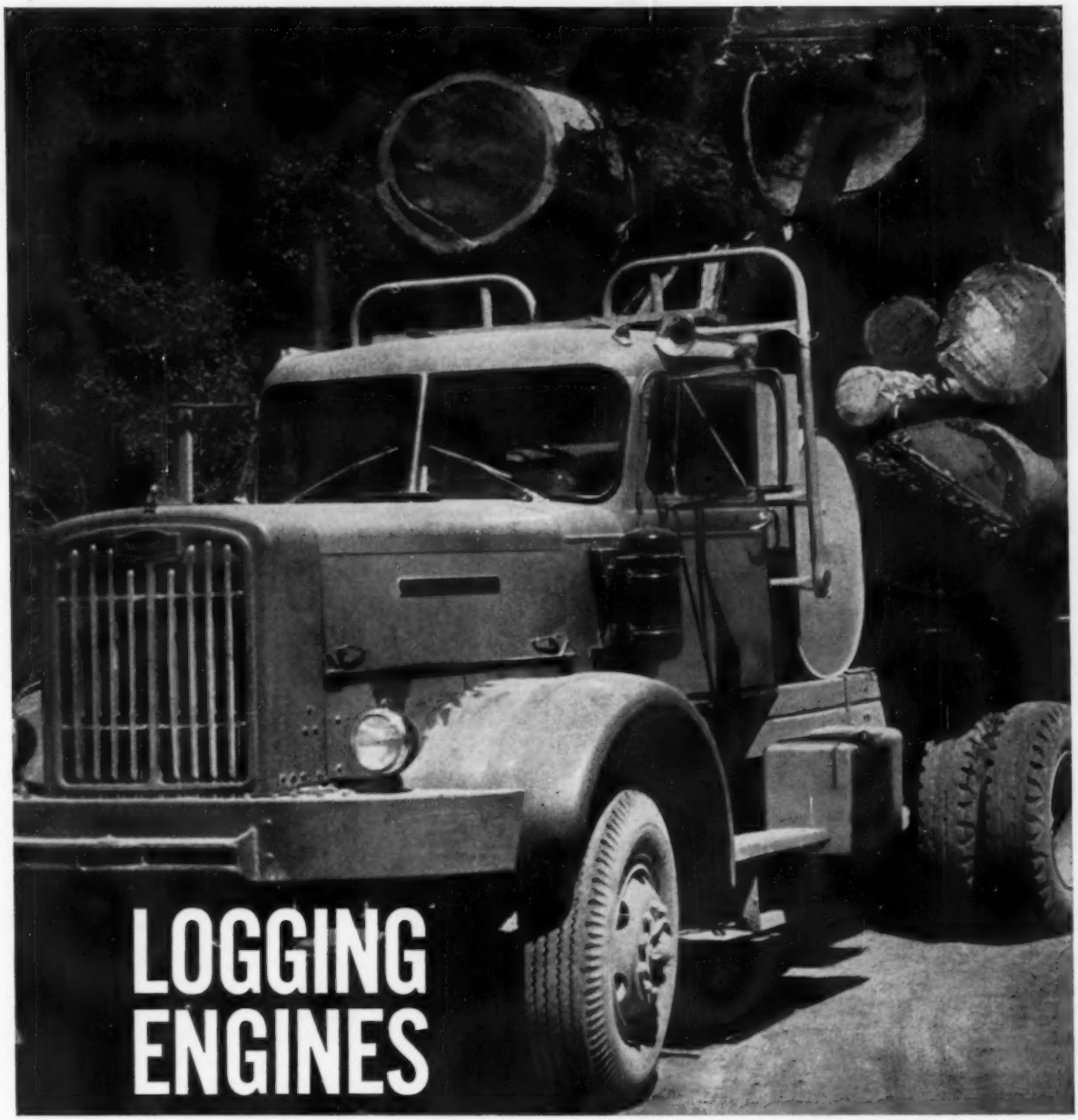

WORK STRONGER LONGER WITH FLYING A!

Logging engines have to muscle through a rugged world of wood—way out where repairs are tough to make. That's why you need petroleum products which give your engines extra protection as well as peak power. And Flying A makes them!

Flying A's diesel fuels, gasolines, oils, greases and lubricants are made to highest quality specifications. They keep engines running stronger longer.

Find out how Flying A's quality products and better service can help *your* operation. Call your nearest Tidewater man today!

FLYING A SERVICE

GASOLINES
DIESEL FUELS
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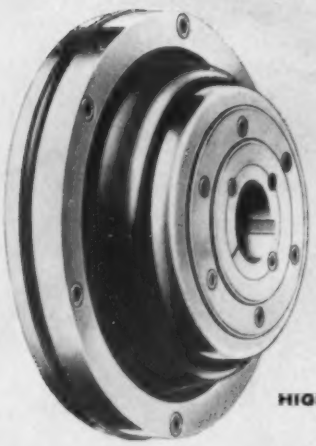
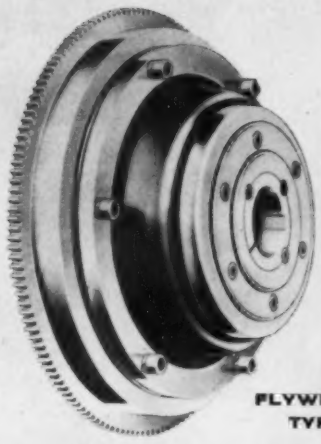
GREASES
LUBRICANTS

TIDEWATER OIL COMPANY

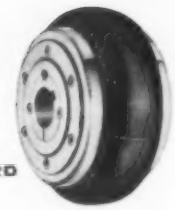


HIGH SPEED TYPE



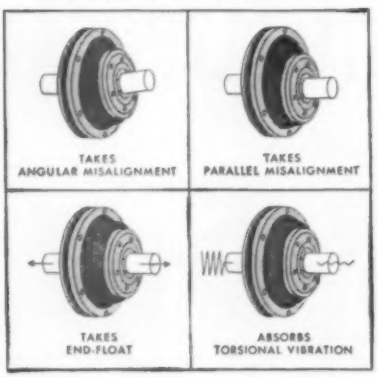
FLYWHEEL TYPE

NOW! THE COUPLING WITH THE 4-WAY FLEX IN TWO NEW TYPES — HIGH SPEED AND FLYWHEEL



STANDARD TYPE

THE 4-WAY FLEX OF PARA-FLEX



DODGE **Para-flex**

Industry asked for this—and here it is! Dodge Para-flex, the unique coupling that swallows up misalignment, is now available for high speed applications, and for high torque at either high or low speed.

The new Dodge High Speed Para-flex is specially designed for operation with motors and internal combustion engines that turn up to 5230 rpm.

The new Flywheel Para-flex, with the same capabilities, has a flexing element that bolts directly to the flywheel of internal combustion engines.

Like the Standard Type (with capacities up to 2000 hp at 1080 rpm) these new Para-flex Couplings feature a modern, tire-like flexing element that handles angular and parallel misalignment, end-float (or any combination) and absorbs torsional vibration. The amazing performance of Para-flex Couplings is a matter of record in thousands of installations.

Ask your Dodge Distributor—or write us for new technical bulletin.

DODGE MANUFACTURING CORPORATION
900 Union Street, Mishawaka, Indiana

DODGE
of Mishawaka, Ind.

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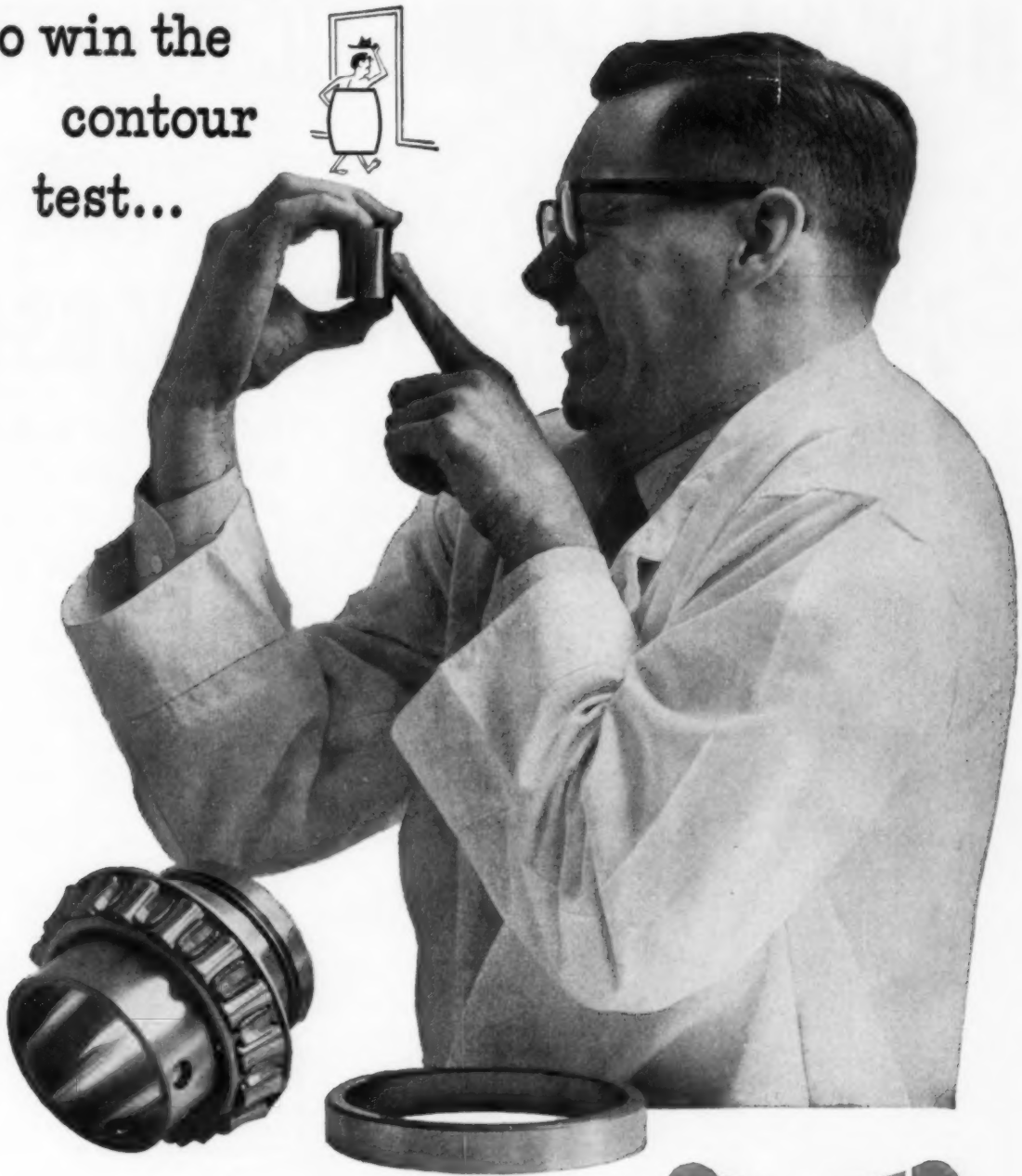

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• You no longer need to buy more starter capacity than you can use for low-horsepower jobs! This new Square D Size 00 starter is compact, easy to install, simple to use and maintain—and it costs 18% less than the Size 0 starter you formerly had to specify to get the advantages of magnetic control! With no sacrifice in quality, this new starter provides: straight-through wiring—pressure-type terminals—1-piece overload relays for complete motor protection—pushbutton or selector switch optional in the cover. Also available without overload relays.

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New starter is available either open or in NEMA Type 1 enclosure. Enclosure shown with selector switch in cover.

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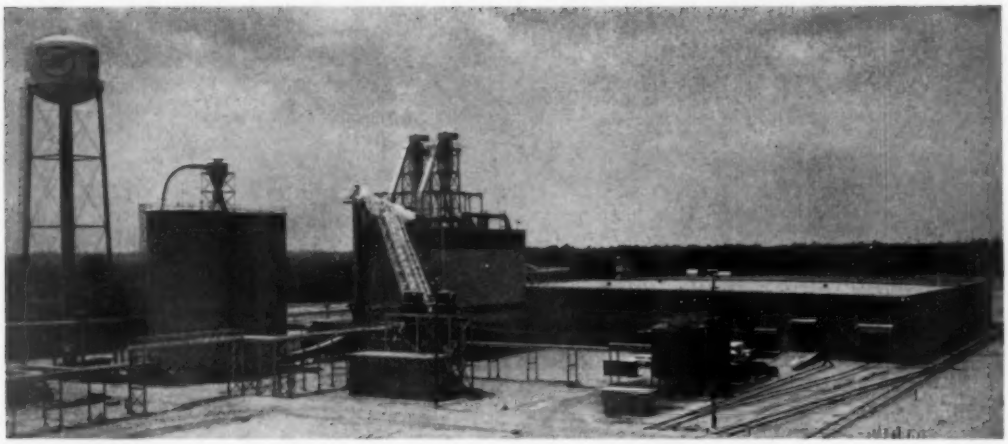


Hardwood chips used to make board are conveyed pneumatically from woodyard to 200-cord tile silo, left. Chips are stored in silo until needed for cooking and refining in mill. Large cyclones are mounted atop four-level fiber preparation building. Other stages of hardboard manufacture, warehousing and mill offices are in brick building at right. Flash drying equipment works in left center foreground. In right center are resin storage tanks. Rotary plate feeders, each 17 feet in diameter, remove chips from storage silos. Feeders carry chips to bucket elevator which empties into elevated chip surge bin. Plate magnets located in chute leading to surge bin remove tramp iron that may have been left in chips. The modern plant covers an area of 100,000 square feet.

Fast Operating Press Speeds Production at

The recently completed Bowater Board plant at Catawba, S. C., is the first major hardboard mill on the eastern seaboard producing smooth-on-both-sides hardboard. According to John G. Robinson, manager of the new mill, the installation is designed to produce 160,000,000 square feet of hardboard a year, using a newly developed air process.

The process utilizes high-velocity air to convey chips and wood fibers that are to be formed into board. The mill's board press is equipped with a simultaneous-closing mechanism that facilitates a faster pressing cycle and produces uniform board thickness.

A new time-temperature cycle developed for the humidification process enables boards to be shipped at the desired moisture-content level. Thickness also may be controlled, made either thinner or thicker than standard hardboard. It may be specially tailor-made to meet critical field end-uses. The density may be controlled by altering the time-pressure cycle.

The air process permits a "better fiber formation and produces an unfinished board with a pleasing warm wood color and two smooth sides." Said to have one of the fastest production cycles, the production capacity of 500,000 square feet uses some 50,000 cords of hardwood annually. Initially the mill employs approximately 100 persons on a three shift basis, seven days per week. The estimated annual payroll will be $500,000. Part of the equipment used in the mill was designed by Bowater's engineers and was tested during the company's 17-month pilot plant program in Oregon.

Much of the key forming equipment in the new Bowater plant including the 4x16-foot, simultaneous-closing Washington press, was supplied by Washington Iron Works in Seattle, Wash. "In fact," remarks Robinson, "Washington Iron Work's engineers and Bowater's engineers worked together right from the talking stage on the forming line equipment and I think the same can be said for the press."

Felter, precompressor, mat cut-off and trim saws, circulating caul system and the high-speed, multiplaten hot press are the principal items of Washington equipment.

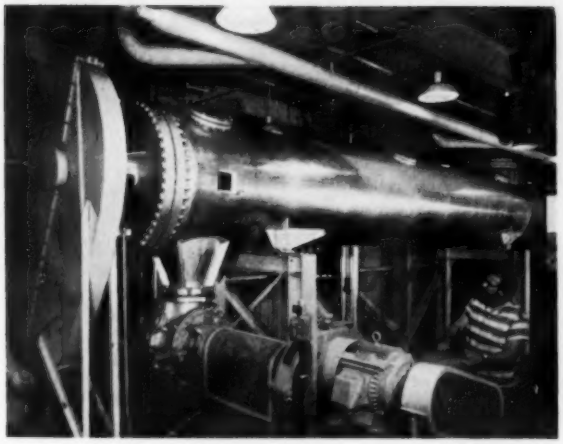
Engineering and construction supervision of the building project was handled by Bowater's Engineering and Development, Inc., of Calhoun, Tenn.

Opening of the new plant marks the first step towards diversification in North America by the Bowater organization. Bowater has produced both hardboard and insulation board in Europe for the European market for the past 30 years. The initial production of Bowater board from the Catawba mill will go to the furniture industry according to J. R. Hahan, Bowater sales manager. The mill is located near the heart of one of the nation's major furniture producing areas in the Carolinas.

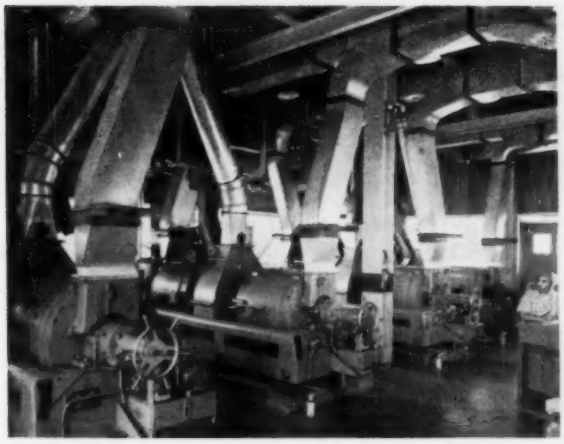
Bowater process of manufacture creates a dry fiber that is formed into mats by a unique vacuum-felting operation. Fiber is subsequently pressed into finished boards for improved stability.

Selected Southern hardwood species are used. Accepted logs are fed into Murco 112-inch, 10-knife chippers for the initial chipping of the raw material. Blower housings on the chippers discharge the chips into cyclones from which they travel by belt conveyor to a series of screens. Fines from the screens are conveyed to the drum refuse system and oversize chips from the screens are fed into a 36-inch six-knife rechipper.

The balance of the production story is shown in the photographs accompanying this article.

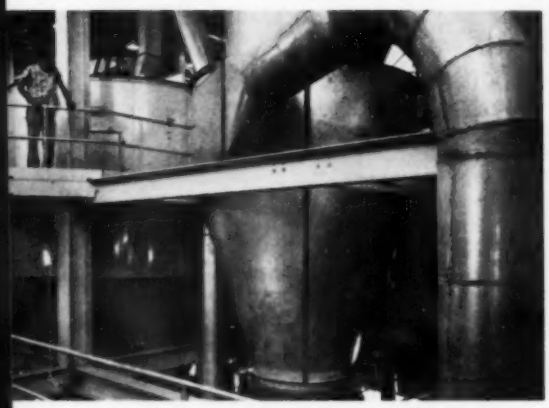


Cooking. Chips are withdrawn from surge bin by cooker feed screw. Screw is equipped with variable speed drive which permits setting of constant flow rate coinciding with retention time of chips inside cooker. Chips remain in American defibrator about 5 minutes, regulated by speed of paddle-type agitator. Steam pressures in cooker up to 150 psi cook chips. Chips are discharged through a rotary valve into distribution screw.

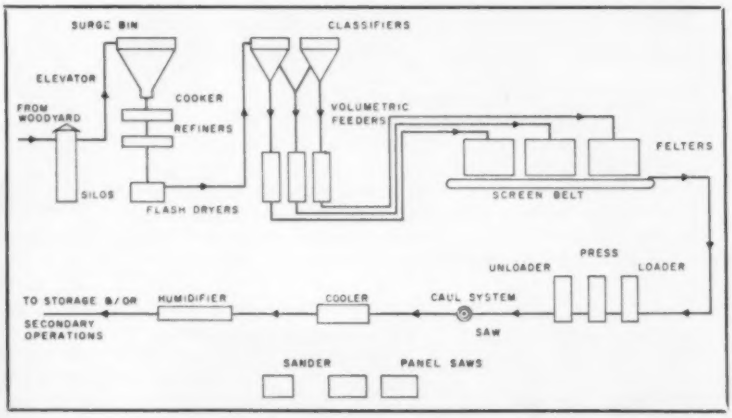


Refining. Four Bauer counter-rotating disc refiners reduce cooked chips to wood fiber. Four metering screws, one of each of the double-disc refiners, draw chips from distribution screw. Chips pass over plate magnets before entering disc refiners. Each refiner has two 400-hp synchronous motors, each driving a disc. At this point, various type resins are added, depending on board desired. Resins are introduced through hollow motor shaft.

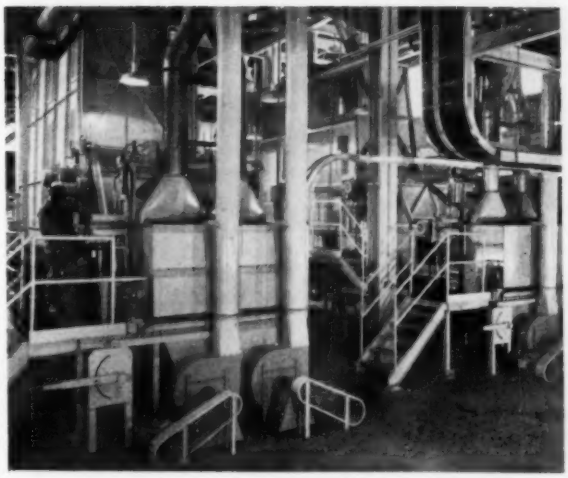
New Bowater Plant



Classifying. Mechanical air separators classify wood fiber as to texture, and automatically transfer it to appropriate coarse or fine fiber volumetric feeders. Wood fiber enters Williams fiber classifiers from large cyclones on top of mill after being flash dried.

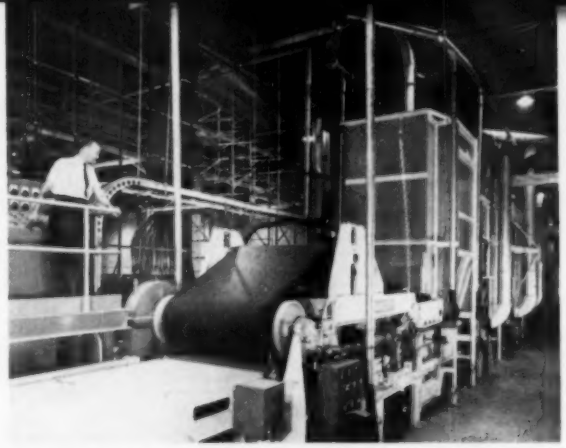


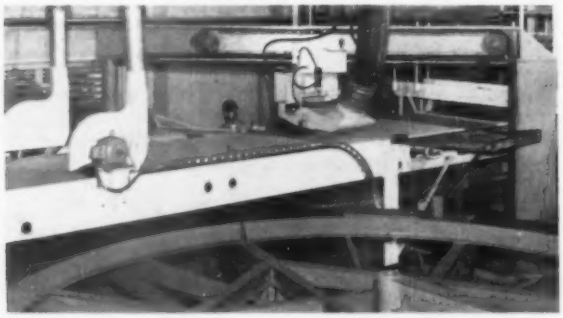
Volumetric feeding. The Cocker machine volumetric feeders are combination storage and metering machines which collect fiber from classifying equipment. There are two coarse fiber and one fine fiber feeders, each electrically regulated to disperse fibers in proper ratio to produce desired quality. For startup purposes, fiber can be shunted to waste after leaving drier to prevent partially wet fiber from entering volumetric feeders.



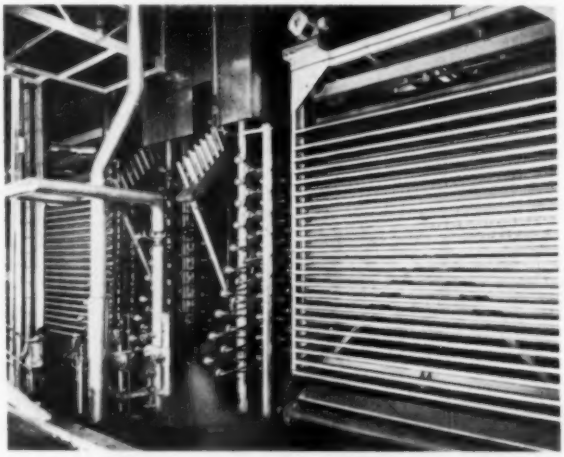
More Bowater on next page

Felting. The Washington Iron Works felter system consists of four separate units with five oscillating nozzles through which fiber is blown by high velocity air. The fiber is deposited continuously on a traveling fourdrinier wire through which excess air is drawn off into suction boxes. There are two coarse fiber streams from each coarse fiber volumetric feeder and a single fine fiber stream. Thickness and density of the mat formed in felters is maintained through the use of side waste ducts which carry away the excess fiber discharged at the ends of nozzle stroke. Three mechanical mat leveling shave-off rolls level the mat through the first three felters. Fourth felter adds a layer of fines. The mat as it emerges from the felter passes between two endless belts in the Washington precompressor. Initial pressure on the mat is applied by two high pressure nip rolls after which the mat is held at reduced thickness by a section of small low pressure rolls. The fourdrinier wire upon which the mat is formed in the felter passes through the precompressor and is driven by the drive rolls of the prepress. From here the mat goes to the precompressor.

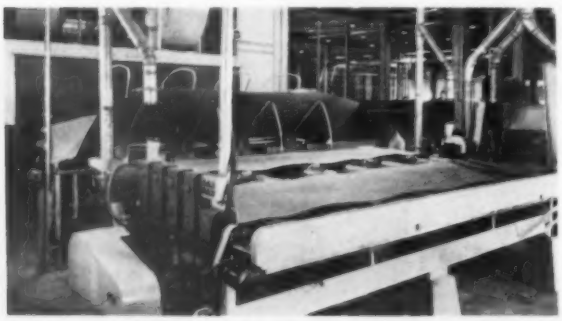




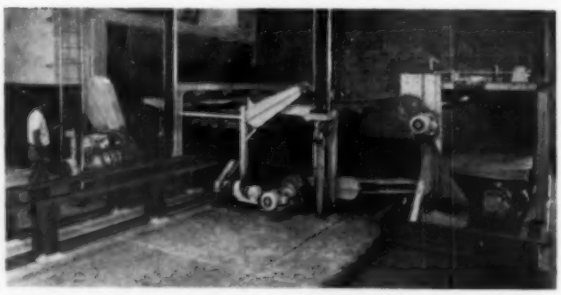
Side trim saws for the mat are mounted on the conveyor and immediately downstream of the side trims the transverse mat cut-off saw is located straddle the conveyor. Mat cut-off saw carriage is driven through line shafting from caul system drive. This arrangement provides synchronization between mats cut by the saw and circulating caul sheets upon which they are deposited. Mereen-Johnson saws and Rader Pneumatics air systems are used.



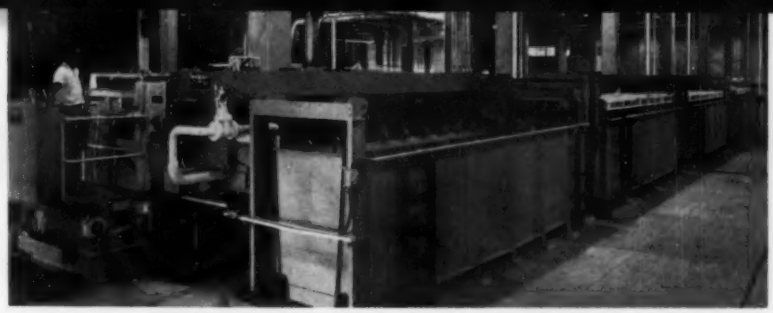
The hot press. The 5,274-ton, 20-opening, Washington hot press is a key unit of this high production plant. Platen size is 56x202 inches. Daily capacity of 500,000 square feet is nearly twice that of most dry process plants to date. Unique features of the press are the simultaneous platen closing mechanism which allows the press to be closed at the rate of 530 inches per minute. A second feature of the press that is required to fully utilize the fast closing feature is the use of 525 degree F. platen temperature produced by 850 psi steam pressure. Air felting system allows the press to produce smooth two side board at press cycles as low as 2½ minutes. An additional feature of press is temperature compensating platen guides which provide accurate alignment of platens at any operating temperature. Total horsepower output of the press pumping unit reaches a peak of over 700 horsepower when the press is attaining full tonnage. American Manufacturing loader and unloader on each side of the press shown in center of photo.



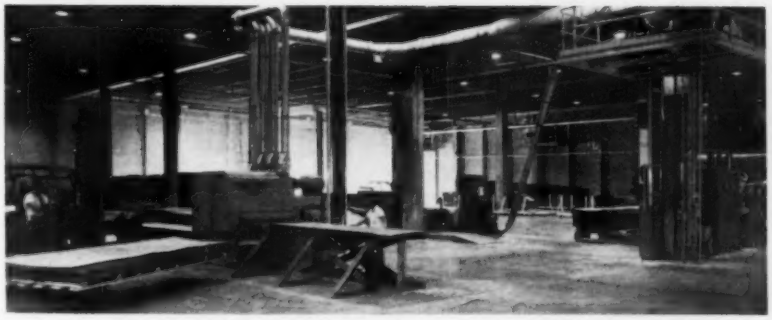
Sawing and cooling. Trim saws cut board into approximate dimensions before cooling. The board is then conveyed into the cooler, at left. Turning arms deposit the load onto receiving arms of the cooling unit. Note that the boards are kept separate to allow free air circulation.



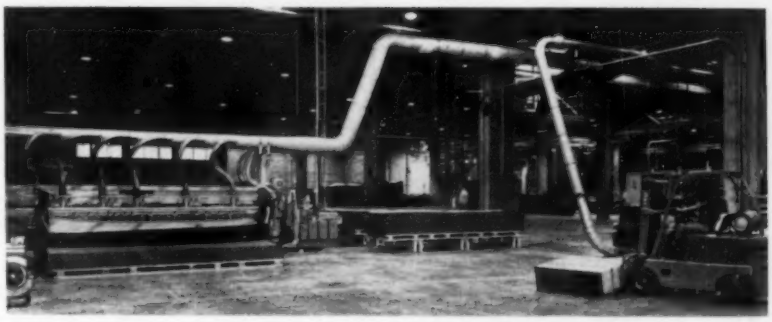
Cooling. Cooling equipment is shown here discharging boards onto the rail transfer car, at right. Each car carries the board to humidification tanks. Boards are stacked with a Moore Dry Kiln stacker. Note how the arms of the cooler turn over to deposit the boards on the feed chains for the stacking unit.



Humidifying. After cooling, boards are immersed in circulating water inside these Moore humidifying vats. Time-temperature cycle for humidification process, developed during Bowater's pilot plant program, effectively brings board to the proper moisture-content level for the particular end use.



Sanding. A three-belt Yates sander, left foreground, moving at 90 linear feet per minute, sands the board to individual customer caliper requirements. High speed sander holds to a caliper tolerance of plus or minus .005 inch. At far right is a part of the panel saw. In the background are storage and shipping areas.



Panel sawing. The Mereen-Johnson panel saw represents the final stage of production. Here, workmen, left, load finished board as it emerges from saw. Panels can be ripped or cross-cut to the individual customers specifications. Finished boards are then steel strapped and stored flat on pallets. A forklift truck handles the boards throughout storage and loading for shipments.

Caul return system details on next page

Principal Equipment

AMERICAN DEFIBRATOR, INC., cooker; AMERICAN MANUFACTURING CO., INC., press charger and press receiver; BAUER BROS. CO., refiners; BUFFALO PUMPS, DIV. OF BUFFALO FORGE CO., pumps; CHEMICAL LININGS, INC., chip silos; COCHRANE CORP., c/o Dickey Engineering Co., condensate pump.

COCKER MACHINE AND FOUNDRY CO., volumetric feeders; THOMAS A. COOPER CO., airline lubricators and filters; DINGS MAGNETIC SEPARATOR CO., c/o D. F. Scarbrough, magnets; DIXIE BEARINGS, INC., drives; ELECTRIC MACHINERY MFG. CO., motor starters; F. W. DWYER MANUFACTURING CO., air velocity meter; FRENCH OIL MACHINERY, screw press; EATON MANUFACTURING CO., Dynamic Div., drive unit.

THE FOXBORO CO., pressure controller, gas meter, flow element and control instruments; GENERAL ELECTRIC CO., D. C. Drive, cable-feeder, power control, limit amp switchgear, medium voltage starters, metal clad breakers, medium voltage control centers, operator's benchboard, recording wattmeters, selenium rectifier, substation and transformer.

JACKSONVILLE BLOW PIPE CO., waste hog; LINK-BELT CO., chip elevator and chip silo feeders; JOHNSON CITY FOUNDRY AND MACHINE WORKS, turntable and caul dip tank; MATERIALS HANDLING EQUIPMENT CO., screw conveyors; MATTHEWS CONVEYOR CO., flash drying duct supports; MIXING EQUIPMENT CO., mixer.

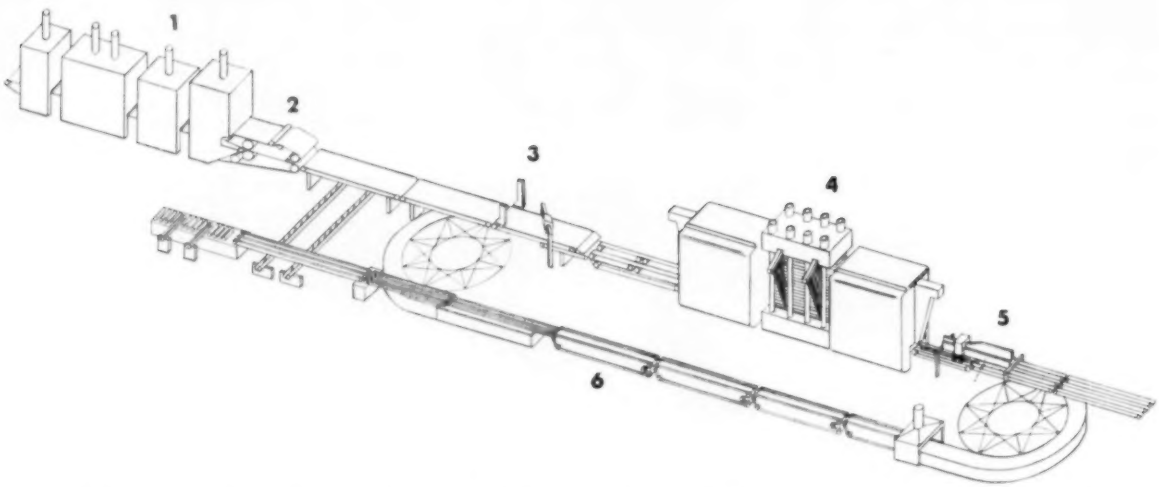
MEC-TRIC CONTROL CO., mercoid liquid temperature controls; MEREEN-JOHNSON MACHINE CO., rough edge trim saw unit and panel saw; MOORE DRY KILN CO., transfer car rails, board handling and humidification equipment, board cooler and conveyors; J. D. MURRAY MFG. CO., chipper; THE OILGEAR CO., press hydraulic oil pumps.

OPELIKA WELDING MACHINE AND SUPPLY CO., process air systems and pick rolls; PALMER THERMOMETER, INC., c/o WARD K. STALLINGS CO., temperature indicators.

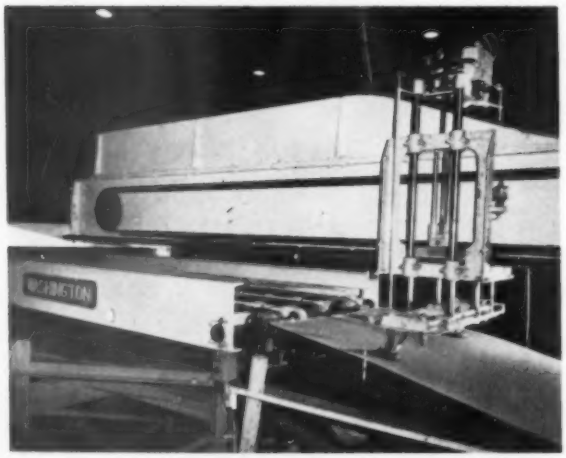
RADER PNEUMATICS, INC., pneumatic feeder and trim waste system; RELIANCE ELECTRIC AND ENGINEERING CO., drive motors, press pit sump pump, pump motors, induction motors; EDWARD RENNEBURG AND SONS, flash drying system; ROBERTSHAW-FULTON CONTROLS, temperature controller.

SQUARE D CO., substations; THERMO ELECTRIC CO., temperature indicator, thermocouple wire and control instrument; TOLEDO SCALE CO., laboratory equipment scales; TRANE CO., air handling unit and refrigeration compressor; WASHINGTON IRON WORKS, forming line equipment and press.

WESTINGHOUSE ELECTRIC CORP., wattmeters, push button stations and drive motors; WILLIAMS CRUSHER & PULVERIZER CO., fiber classifiers; YATES AMERICAN MACHINE CO., sander; CLARK EQUIPMENT, forklifts.



Caul return system. Elements shown include 1—felters, 2—precompressor, 3—cutoff and trimsaws, 4—press, 5—board separator, 6—caul conveyor system. Washington Iron Works provided section.



Caul return system closely synchronized with press loader and unloader

The Washington-built caul system is a complete departure from existing systems in that it employs an endless chain which pulls the cauls from a point outside the unloader to a point just short of where the mat is placed on the caul. The caul system speed is the same as the speed of the mat which requires that the cauls must be spaced on the chain as close together as possible.

The mat cut-off saw cuts a 20-inch gap in the mat which allows the mats to be deposited on the circulating cauls with no change of speed. During the time that the mat is being transferred onto the caul, the caul has been released by the pulling chain and is being pushed by a second chain with lugs. Pusher chain is driven by main caul chain drive to synchronize it with the caul feed rate.

Conventional belt conveyors are used to carry the cauls to and from the loader and unloader. The boards are separated from the caul sheets, after hot pressing, by vacuum cups on a reciprocating carriage. (Top photo) Board separation is done as the cauls are discharged from the unloader and while the caul is moving.

Synchronization of the caul chain speed and board separator carriage with the mat conveyor is accomplished through the use of Selsyn controlled D.C. drives.

Damaged cauls can be rejected from the system and replaced while running through a system of conveyors which are also mechanically interlocked to the caul drive system. Cauls are re-introduced into production line at a point just ahead of the press loader.

The loader and unloader are of the continuous indexing type. ■■

TOTAL ALL REGIONS 222 MILLS REPORTING THROUGHOUT U. S. with 1,680 Dry Kilns *(single unit basis).*

Where the Industry Stands on Seasoning

Seasoning of lumber is gaining more momentum throughout all producing regions of the United States and British Columbia than is generally realized. Seasoning of over 80% of the lumber produced could become a reality within the immediate years ahead.

Today's controversy over seasoning would appear to be a self-resolving situation. Markets, economics and competition will force solutions.

THE LUMBERMAN recently completed an extensive survey of seasoning within the industry and presents the facts here for the readers' analysis. The survey was made only at mills with dry kilns, and this limiting factor must be taken into account in any analysis.

However, the annual production of the 222 manufacturers who responded to the 1000 inquiries made represent one-fifth of the nation's total lumber production capacity. This is a far greater percentage than is normally deemed essential for accurate production of trends.

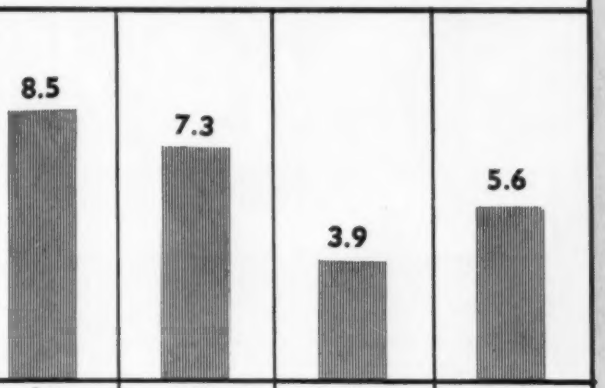
Some charts are comparative for a five-year spread—1954 and 1959.

Consider in the conclusions charted out for you the factors of grade and brand marking and the number who expect to finally grade and brand mark 100% of their lumber. This means the industry is moving steadily toward more quality in its product.

Whether it is forced by economics or competition is not important. The important factor is the direction of the trend.

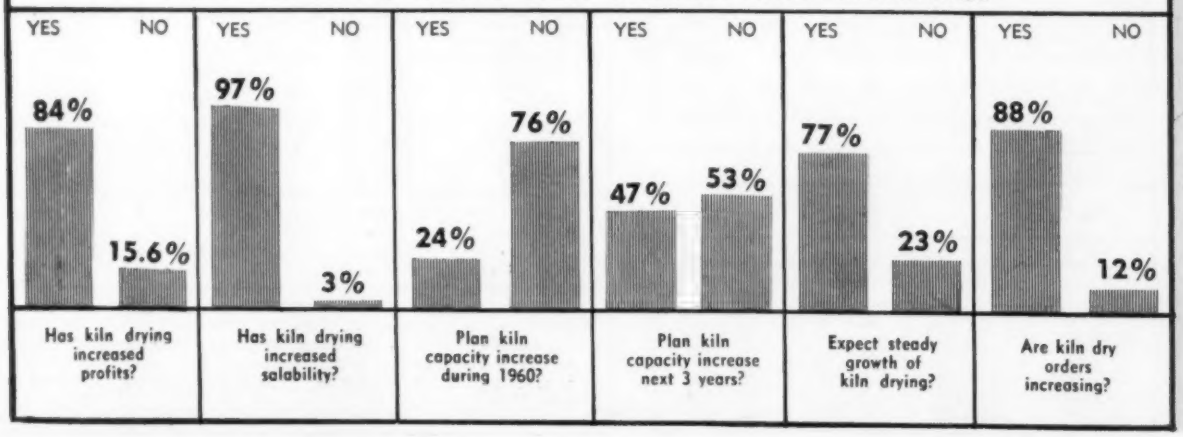
Survey results from major producing areas appear on next four pages.

RELATION OF DRYING FACILITIES AND SHIPMENTS TO CAPACITIES
IN BILLIONS of Board Feet



1959 annual kiln capacity of the total reporting 222 mills is 85% of production capacity. 1959 dry shipments were 76.7% of kiln capacities and 66% of production capacities. Dry shipments were 69.6% more than in 1954.

HOW MANUFACTURERS VIEW KILN DRYING ECONOMICS


YES 84% NO 15.6%
Has kiln drying increased profits?
YES 97% NO 3%
Has kiln drying increased salability?
YES 24% NO 76%
Plan kiln capacity increase during 1960?
YES 47% NO 53%
Plan kiln capacity increase next 3 years?
YES 77% NO 23%
Expect steady growth of kiln drying?
YES 88% NO 12%
Are kiln dry orders increasing?

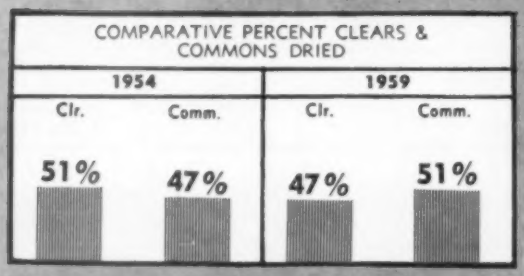
WEST COAST AND REDWOOD REGIONS 69 MILLS REPORTING with 437 DRY KILNS *(single unit basis)*

COMPARATIVE PERCENT OF SPECIES DRIED

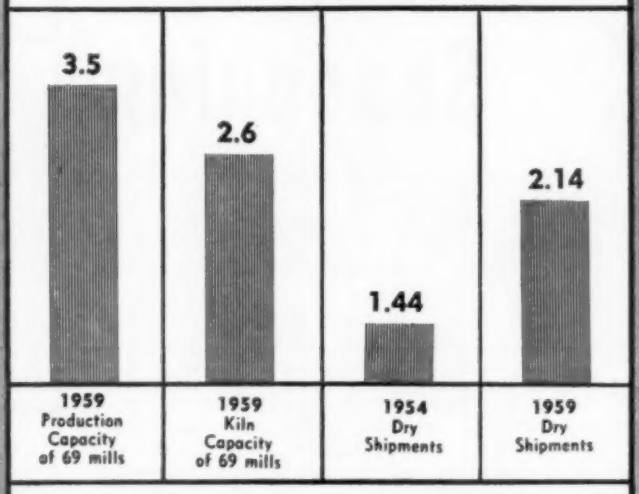
	1954	1959	Change
DOUGLAS FIR	61%	63%	+2%
HEMLOCK	53%	59%	+6%
SPRUCE	70%	53%	—17%
WHITE FIR	80%	86%	+6%
CEDAR	86%	60%	—26%
REDWOOD	60%	82%	+22%

Relative changes must take into account both increased drying facilities during past 5 years and various production volumes of different species.

COMPARATIVE PERCENT CLEARS & COMMONS DRIED



RELATION OF DRYING FACILITIES AND SHIPMENTS TO CAPACITIES IN BILLIONS of Board Feet



1959 annual kiln capacity of the 69 West Coast and Redwood mills reporting was 74% of production capacity. 1959 dry shipments were 82% of the kiln capacities and 61% of the mill production capacities. 1959 dry shipments were 67% more than 1954.

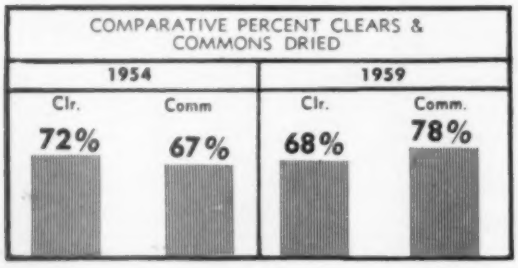
WESTERN PINE . . . 91 MILLS REPORTING with 683 DRY KILNS *(single unit basis)*.

COMPARATIVE PERCENT OF SPECIES DRIED

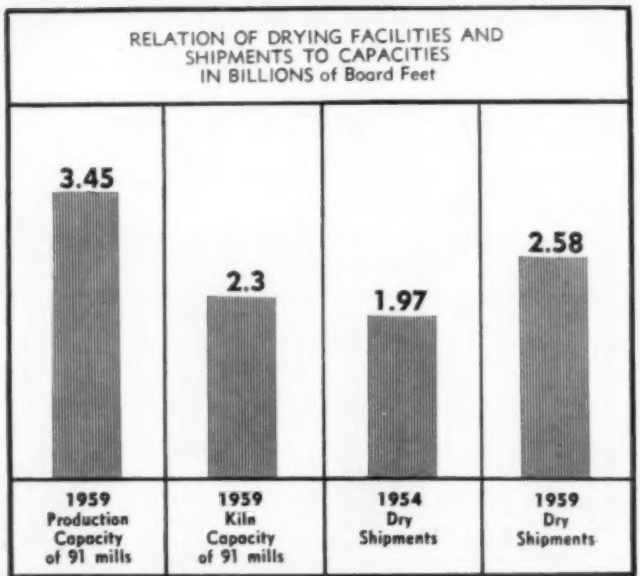
	1954	1959	Change
DOUGLAS FIR	33%	45%	+12%
HEMLOCK	66%	54%	—12%
SPRUCE	71%	76%	+5%
LARCH	40%	46%	+6%
CEDAR	73%	54%	—19%
PONDEROSA PINE	80%	80%	.....
WHITE PINE	66%	70%	+4%
SUGAR PINE	79%	66%	—13%
LODGE POLE	.....	95%	+95%

Changes in volume of species produced has effect on reduced percentage of species dried. Those reporting showed no lodgepole pine dried in 1954 but 95% in 1959.

COMPARATIVE PERCENT CLEARS & COMMONS DRIED



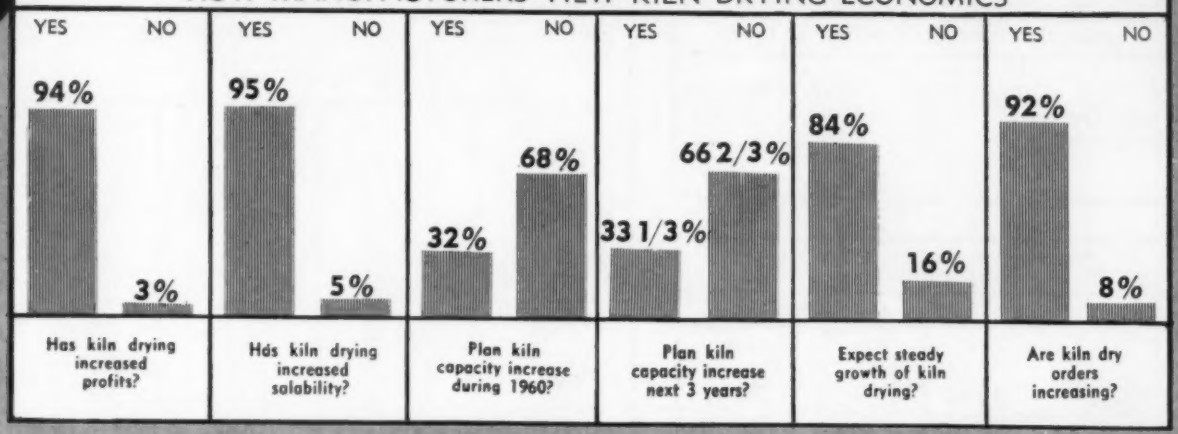
RELATION OF DRYING FACILITIES AND SHIPMENTS TO CAPACITIES IN BILLIONS of Board Feet



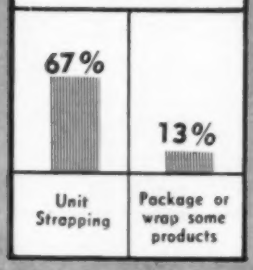
1959 annual kiln capacity of the 91 Western Pine mills reporting was 68% of total production capacity. 1959 dry shipments were 9% over listed dry kiln capacities of the 91 mills and 75% of total production capacities. 1959 dry shipments were 76% over 1954.

SOUTHERN REGION INCLUDING 9 EASTERN MILLS 50 MILLS REPORTING WITH 359 KILNS *(single*

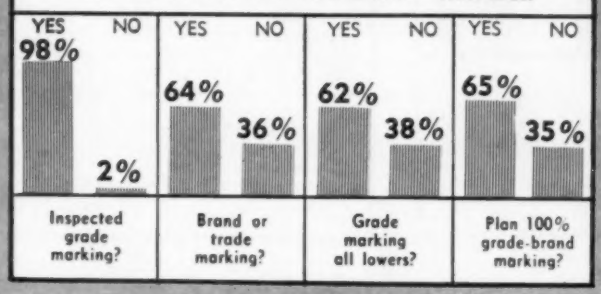
HOW MANUFACTURERS VIEW KILN DRYING ECONOMICS



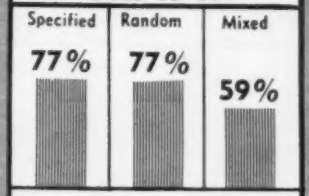
PACKAGING PRACTICES



GRADE-BRAND MARKING TRENDS — West Coast

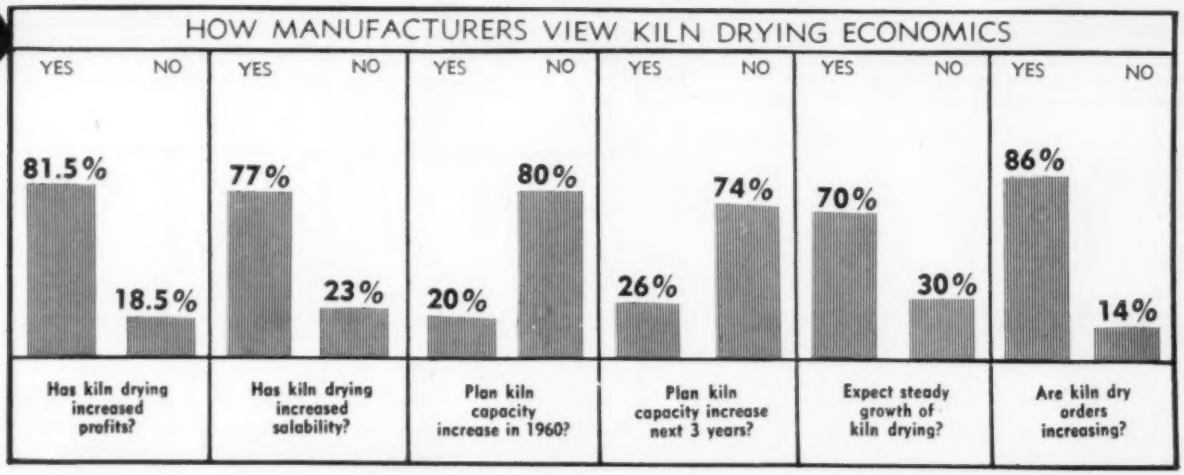


HOW THEY SHIPPED DRIED LUMBER

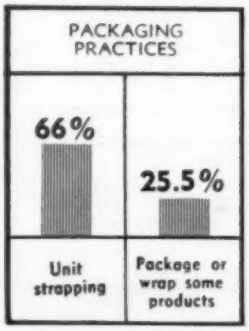


Percent by number of companies. Many ship all methods.

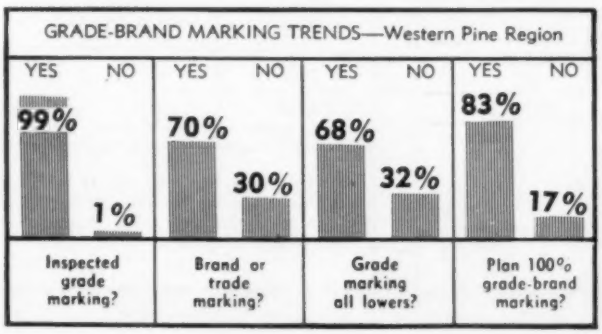
HOW MANUFACTURERS VIEW KILN DRYING ECONOMICS



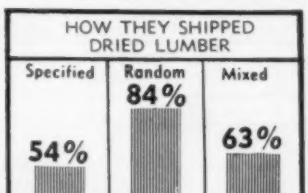
PACKAGING PRACTICES



GRADE-BRAND MARKING TRENDS—Western Pine Region



HOW THEY SHIPPED DRIED LUMBER



Percent by number of companies. Many ship all methods.

HOW MANUFACTURERS VIEW KILN DRYING ECONOMICS

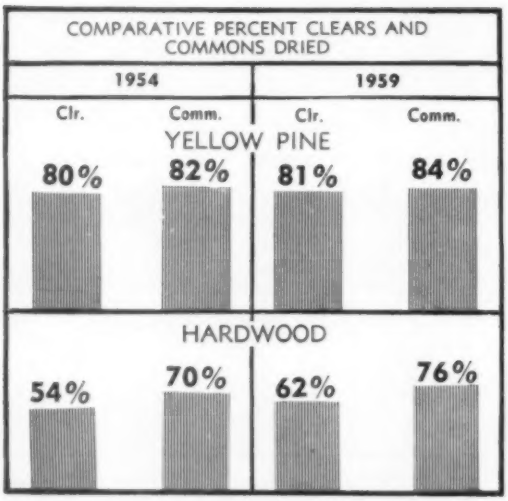
SOUTHERN REGION INCLUDING 9 EASTERN MILLS

50 MILLS REPORTING WITH 359 KILNS *(single unit basis)*.

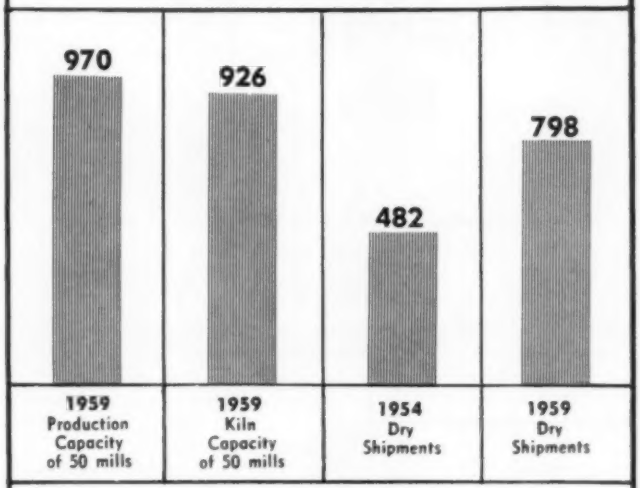
COMPARATIVE PERCENT OF SPECIES DRIED

	1954	1959	Change
YELLOW PINE	84%	87%	+3%
HARDWOOD	54%	54%	.....

COMPARATIVE PERCENT CLEARS AND COMMONS DRIED



RELATION OF DRYING FACILITIES AND SHIPMENTS TO CAPACITIES
In MILLIONS of Board Feet



1959 annual kiln capacity of the 50 Southern and Eastern mills was 95% of production capacity. 1959 dry shipments were 86% of the dry kiln capacities and 82% of mill production capacities. 1959 dry kiln shipments were 60% over 1954.

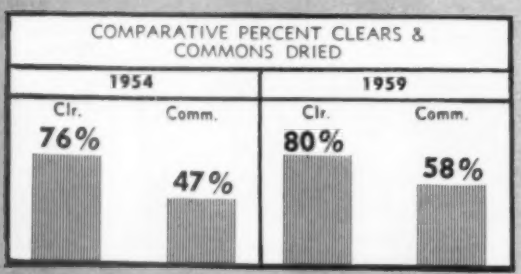
BRITISH COLUMBIA, CANADA

12 MILLS REPORTING WITH 101 KILNS *(on single unit basis)*.

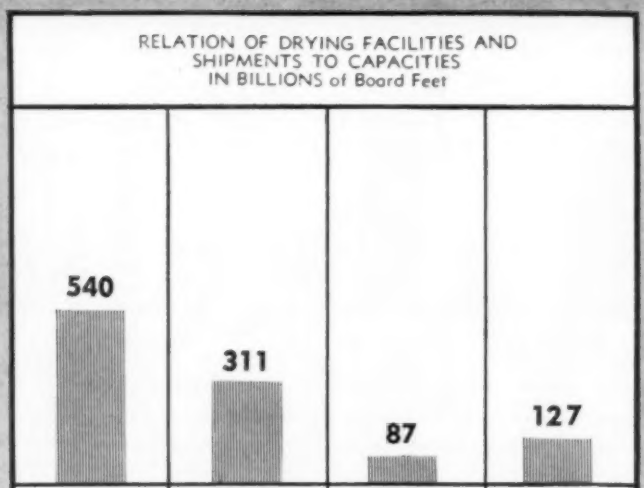
COMPARATIVE PERCENT OF SPECIES DRIED

	1954	1959	Change
DOUGLAS FIR	36%	21%	—15%
HEMLOCK	22%	24%	+2%
SPRUCE	74%	80%	+6%
CEDAR	43%	53%	+10%

COMPARATIVE PERCENT CLEARS & COMMONS DRIED

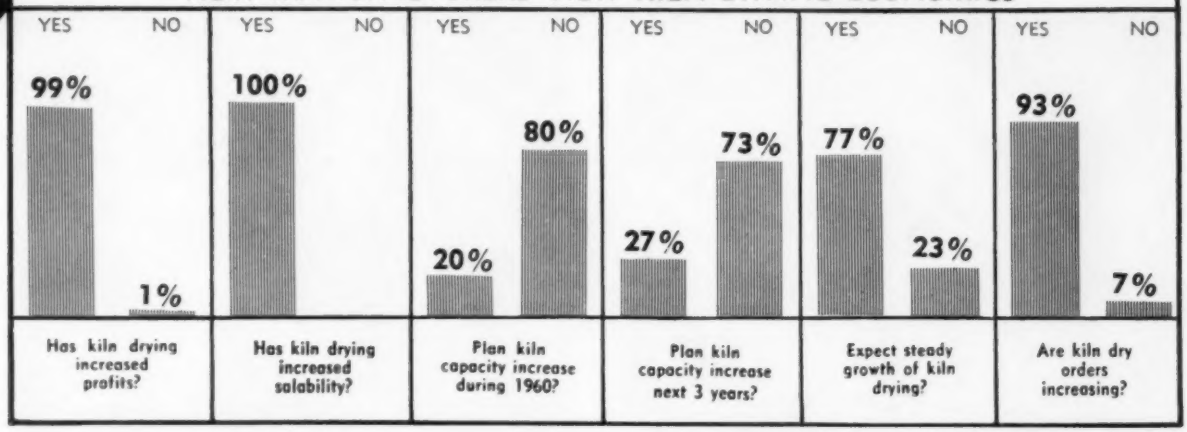


RELATION OF DRYING FACILITIES AND SHIPMENTS TO CAPACITIES
IN BILLIONS of Board Feet

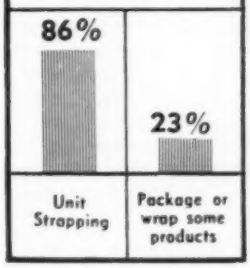


1959 annual kiln capacity of the 12 B. C. mills reporting was 57% of production capacity. Dry shipments were 41% of dry kiln capacities, and 24% of mill production capacities. 1959 dry kiln shipments 70% over 1954.

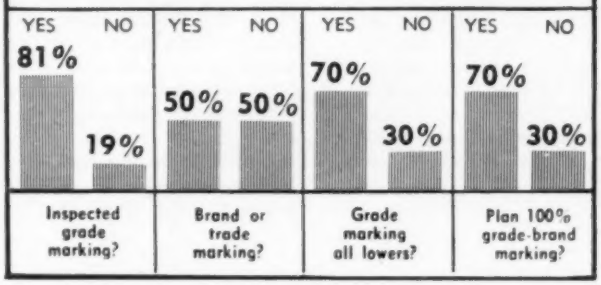
HOW MANUFACTURERS VIEW KILN DRYING ECONOMICS



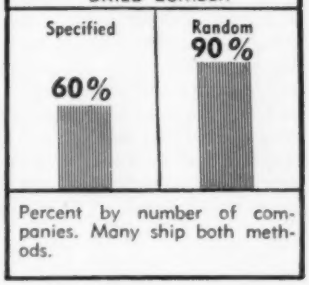
PACKAGING PRACTICES



GRADE BRAND MARKING TRENDS—Southern

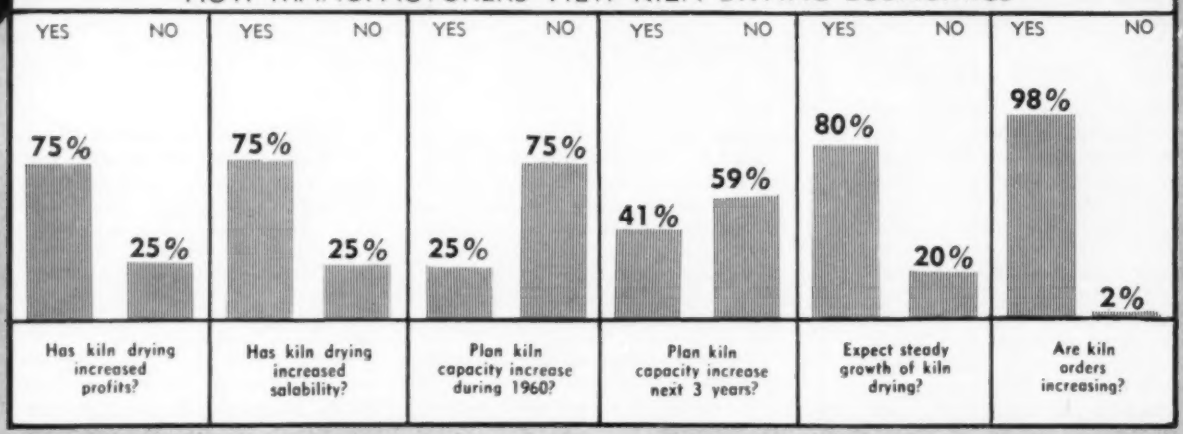


HOW THEY SHIPPED DRIED LUMBER

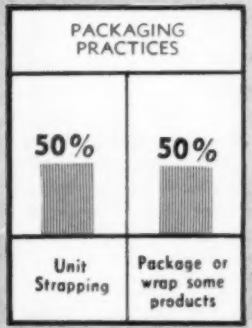


Percent by number of companies. Many ship both methods.

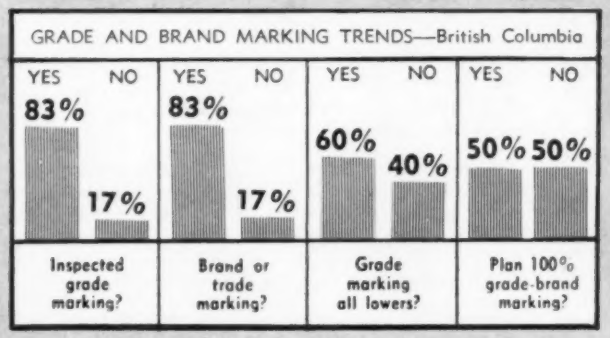
HOW MANUFACTURERS VIEW KILN DRYING ECONOMICS



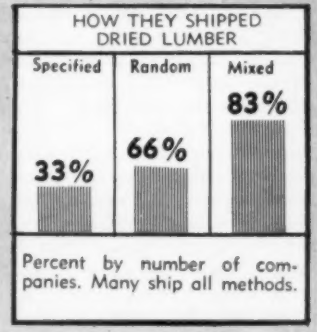
PACKAGING PRACTICES



GRADE AND BRAND MARKING TRENDS—British Columbia

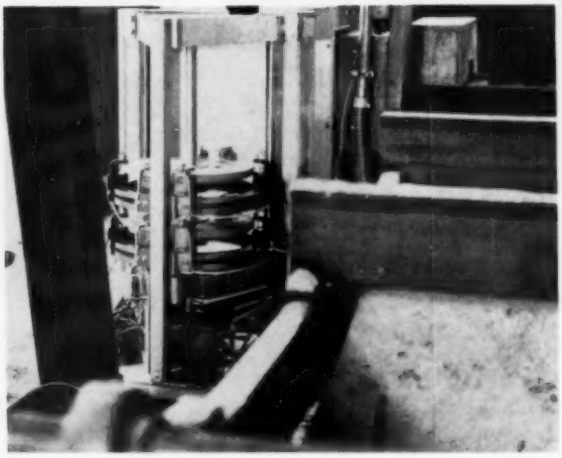


HOW THEY SHIPPED DRIED LUMBER



Percent by number of companies. Many ship all methods.

Trimmerman uses left hand to set trim saw keys and 24 inch long memory system key in one motion, as lumber passes over a 20 inch decision area in front of him. His right hand is free to control feeding of lumber on the saw lug chain from the camelback. The printer is located 18 feet from the trimmer, 5 lugs beyond the trim saws. There is no loss of memory information in starting and stopping the saw chain. The Magnestat is completely insensitive to speed and will operate synchronized to the chain in a range from stand-still to top speed of 75 per minute.



Memory system is electrical and magnetic, involving none of the sensitive electronic components frequently affected by temperature variation or vibration. Grade marking decisions made by the trimmerman are immediately stored as magnetic impulses on the discs of the Magnestat memory. Sprocket is chained to the head shaft of the trim saw lug chain. The memory discs turn in synchronization with the travel of lumber on the chain. Stored impulses activate the appropriate printing head as lumber reaches printer. Space on disc housing allows for expansion to automatic sorting.

Memory Controlled Center Face Printer Solves

FHA grading stamping

requirements for sheathing and framing lumber are an item of direct and immediate concern to virtually every mill producing dimension stock for homes.

Hill Lumber Co. of Curlew, Wash., met the problem by developing a new centerface printer equipped with a REDCO Magnestat memory system. The efficient printer marks each board uniformly with a clear, neat, legible grade designation, greatly enhancing the appearance and salability of the lumber.

Hill Lumber Co. produces about 2,500,000 board feet per shift per month cutting a ratio of 60% fir and 40% larch from September through April.

During the months of May through August of each year, production is exclusively Engelmann spruce. About half the monthly planing mill stock is supplied from Hill Lumber's sawmill at Curlew, with the remainder coming from its Canadian mill, Hilco Lumber Ltd. at Fruitvale, B. C.

The new grade stamper was designed and built by Rene LaMarche, general manager, and Fred C. Lyons, plant superintendent. The unit is extremely compact in design, measuring only 30x40 inches overall. It is simple to operate and involves for the most part standard easily-replaceable components.

The main frame of the stamper is prefabricated from 3x2-inch angle iron. Four 2x2 air cylinders are suspended from an adjustable frame which straddles the main frame. These cylinders activate each of the printing heads. Two grade marking dies are attached to each stamping disc, giving Hill eight grade choices on its four marking heads.

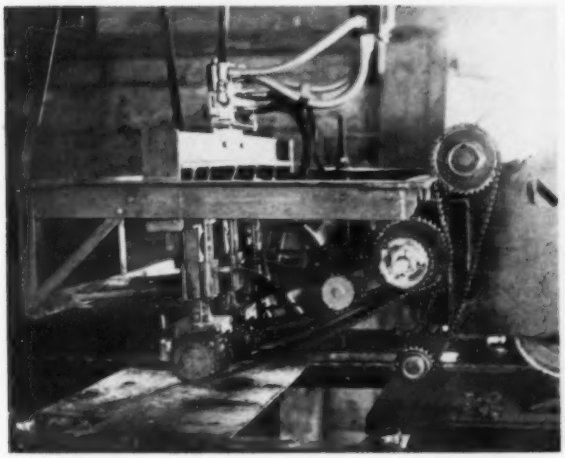
Number of grades can be easily expanded to any desired lumber. The shaft passing through the die head must be key-seated to achieve positive rotation. This is the only part of the entire stamper requiring machine shop manufacture.

The stamper, which was prefabricated by Ted Smith, shop mechanic and Ralph Clendenen, sawmill foreman of Hill Lumber, is adjustable for marking surfaced stock from 4/4 to 16/4. The marker is ideally suited to average and smaller sized mills striving to achieve grade marking automation within the confines of a close operating budget.

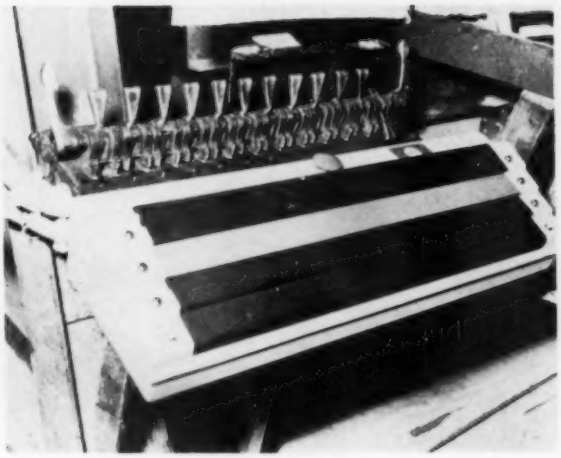
Memory controlled. The Hill printer marks the first application of the REDCO Magnestat memory system developed by Republic Electric & Development Co., Seattle, Wash. to the push-button automation of grade stamping functions.

The memory unit operates entirely from 110 volts, 60 cycles, AC with a load of less than 5 amperes. Power control for the memory system is obtained from the motor starter on the saw chain. When the saw chain is stopped, the voltage to the Magnestat unit is automatically cut off.

The system was installed and completely synchronized with the printer over a normal shut-down weekend.



Grade stamper has four air cylinders vertically activated by air electric solenoids. Two grade marking dies are attached to each disc, providing stamping for eight grades. Special extension spring holds printer heads steady and affords necessary flexibility for handling boards that come through accidentally misfed or piled on top of lugs. When a grade decision change occurs, memory equipment retracts printing wheel which was down, simultaneously lowering into printing position the appropriate print wheel to mark the board on which decision change was made.



For speed and economy of movement, the memory system keyboard has keys 24 inches long, extending the entire length of the trim saw key box. In one simple movement, the trimmerman can trip the proper trim saw key, and by merely dropping his hand punch the appropriate grade marking key. The keys are individually colored and flanked by correspondingly colored pilot lights at each end to indicate grade choice. Large "no print" push button on top of the keyboard enables operator to stop grade stamping any board or boards at the memory dispatch control lug.

Problem of Grade-Marking Sheathing, Framing

The simplicity of the installation and the trouble-free maintenance are features that make it easy for the average mill electrician to perform all service and adjustments on the system.

During initial adjustment, the position of the magnetic impression on any disc can be determined by its attraction to a normal screwdriver blade. A simple neon bulb-type of AC circuit tester can be used to check the 110 volt signal read-out sent to the air solenoid valves operating the printing head. The limited number of relays required are a plug-in type for easy replacement in the field.

How the printer works: Rough lumber coming from the sawmill enters the tilt-hoist unloader and planer feed table. Moving through the Stetson-Ross planer, the dimension lumber passes over a slow-down roll and then drops on to a camelback chain where the graderman examines each board and then marks trim saw and grade information on the lumber with chalk.

Continuing down the chain, the lumber enters a 20 inch decision area where the trimmerman activates trim saw keys and the memory system key governing the proper grade marking designation.

The discs are set up in a bi-disc arrangement in which each memory disc actually makes a half revolution as the lumber travels from the trimmerman through the trim saws to the printer. Thus, memories for two grades are provided by each disc. Effectively splitting the discs in this manner affords maximum utilization of the memory equipment.

As the lumber reaches the printing head, the magnetic impressions carried on the rim of the disc actuate read-out switches which close a 110 volt AC circuit connected directly to the solenoids controlling the air cylinders operating the printing heads.

Once the magnetic impression has passed the read-out switch it is erased, thereby cleaning the disc for carrying other grade information simultaneously from the adjacent half of the disc. The memory for the second grade is provided by duplicate write coil, read head and erase coil positions on the other half of the memory disc. Because of the extremely accurate synchronization of the system, each grade mark impression is centered on the face of the board providing a neat, legible identification of the lumber grade.

For easy maintenance and cleaning, the grader station console keys are hinged, affording ready access for air hose cleaning during routine checkouts of the trim saw. The entire memory unit is also protected by a sheetmetal cover with an access door provided in the rear for easy visual inspection when required.

From its very first day in use, the automatic stamper and its brain unit have been giving flawless performance in grade marking Hill Lumber's production. Patents on the grade stamper have been applied for and it is anticipated that a production model will be under manufacture and available to other mills shortly. ■■

Acme Timber Industries sawmill at Sabie in South Africa, is surrounded by the plantation from which it draws its raw material. Workers in the mill live in village seen on fringe of the plantation. Mill flow is shown at right.

South African Multiple Gang Mill handles 2.5 million

cubic feet, round log scale, yearly, with modern Swedish equipment.

In Sabie, Eastern Transvaal, in a romantic and picturesque sub-tropical setting, near the lion country of the Kruger National Park, is located the new plant of the Acme Timber Industries, Sabie sawmill. It is said to be the largest mill in South Africa and second largest in the Southern Hemisphere.

Present investment in the operation is 800,000 pounds (about $2,250,000) and planned increases will up this figure to 1,300,000 pounds (about $3,650,000) in the next few years. The mill is linked by radio telephone to the headquarters in Durban, about 800 miles distance.

The mill's round log capacity is 2,500,000 cubic feet (about 15.6 million board feet). This will eventually be increased to reach 8 to 10 times that amount. By 1969 it will produce some 28,000 standards (about 56 million board feet) of finished products with a sale value in excess of 2,000,000 pounds (about $5.6 million a year).

Species converted at the mill are 90% South African pine and 10% eucalyptus saligna.

Log handling. A weighscales weighs all incoming loads of saw timber. A calculated conversion factor is applied to obtain volume measurement capable of weighing up to 30 tons. The roadways are inclined toward ramps allowing easy off-loading by gravity. Off-loading averages three to four minutes per truck.

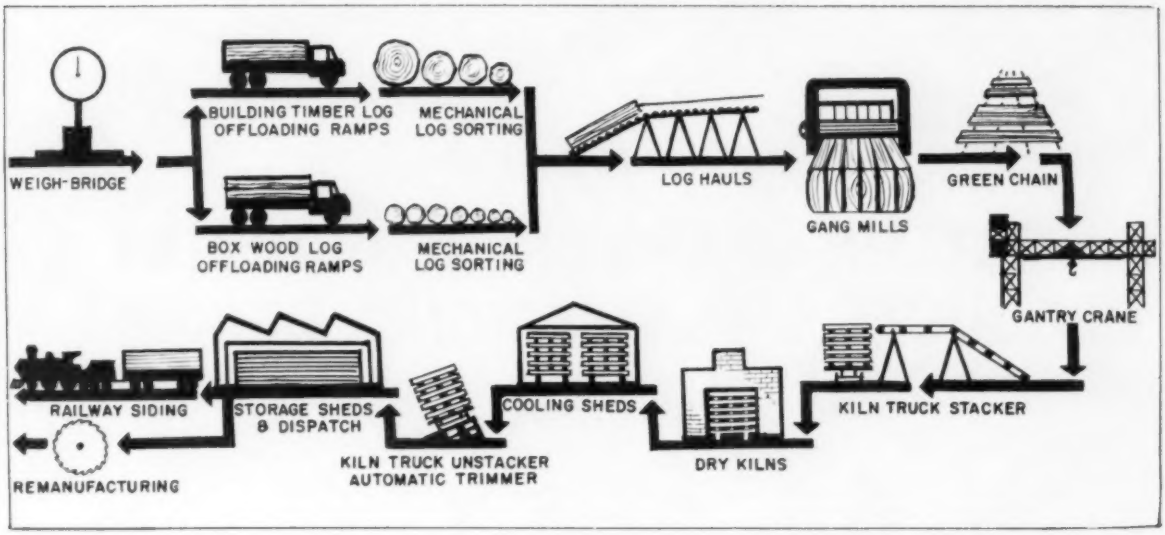
Unloaded logs are placed on an incline log haul and conveyed to the Ewemaskiner (Swedish) log sorting device. Logs are sorted to 1" dia. classes, mixed lengths. Measured on the incline, logs are sorted into bays by the sorting operator, with a predetermined control. The control lever adjusts a pre-set mechanism on a carriage. At the proper bay, the pre-set trip is actuated, the carriage collapses and dumps the logs into its proper bay, on either side of the conveyor chain.

The sorting system is on a company designed layout. All framework was locally manufactured. The sorting chains can handle a 10-ton truck load of incoming logs in five minutes.

Sawmill is of steel construction. It is equipped with four production lines of Soderhamn gang saws. Each of the four lines has a capacity of 2,250,000 (14 million board feet) a year. Refuse is hogged for fuel.

The green chain is equipped with an overhead traveling crane of 12-ton capacity and designed for easy trans-

Log sorting equipment mechanically separates logs into inch diameter class. The operator pre-selects the requisite bay into which logs are tripped.



port of lumber, sorted into sizes and grades, to the kiln operations.

Kiln truck stackers are also Swedish. Used for the first time in South Africa, they constitute a decided advance in timber handling methods for the region.

Each of the kilns is 200 feet long and contains a double track. The Swedish kilns embody principles of high air velocity and relatively low temperatures under automatic control. They are heated by exhaust steam from the electric generating plant.

Drying process lasts from 4½ to 5 days, reducing the moisture content from 180 to 200% of dry weight to 15%. That means that a cubic foot of green timber weighs about 65 lbs. and when dry it weighs 30 pounds. More than half the weight of green wood is made up of extractable water. Kiln trucks are handled with help of an electric kiln transfer car. From kilns, lumber progresses to cooling sheds and unstackers, and then to an end trimmer, both of Swedish origin. The drying shed has 50,000 square feet with a clear span for 100 feet.

Acme has launched a pioneering of frame houses for its workers. This is the first time frame houses have been constructed in South Africa on such a large scale. However, lumber operators have launched a crusade for wood houses, much on lines followed in Canada, U.S., Sweden and Australia.

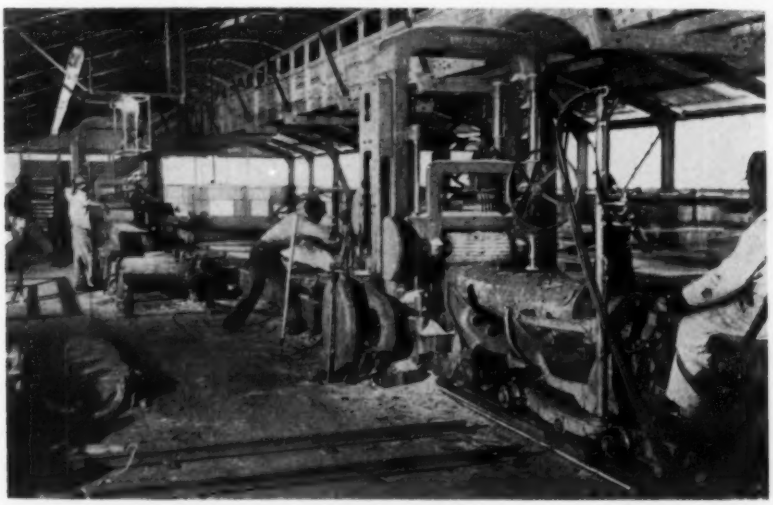
Within living memory, Sabie was a little golden village and many gold seekers found nuggets in the streams. But the golden story of Sabie has now changed to the green gold of pines.

Behind the enterprise are two financial interests of differing backgrounds, Charles W. Engelhard, New York City, and Solomon Moshal, South Africa. Mr. Englehard is controller of mines and industries with large timber interests in South Africa. He is the son of a German who emigrated to United States in 1891. Mr. Moshal arrived in South Africa with his parents from Russia when he was eight. Apart from American interests, Mr. Englehard is chairman of Englehard Industries of South Africa. This controls South African Forest Investments, of which Acme Timber Industries is a wholly-owned subsidiary.

Acme began some 40 years ago in Durban as a small box factory. The company soon after began planting timber in the Eastern Transvaal. A merging of Forest Investments 11 years ago, means that the combined interests of Acme-Safi own 125,000 acres. Of this, 80,000 acres are forested. Within a few years there will be 100,000 acres of commercial forest in the holding. Total capital investment is now about 8,000,000 pounds (about $22.5 million).

Extensions are still going on at the new mill, which are expected in the future to make it the largest sawmill in the southern hemisphere.

The amount of capital now invested in the South African timber industry is more than 180,000,000 pounds (about $505.8 million) and the yearly wage total is 8,500,000 pounds (about $23,885,000). ■■



Gang saws were developed by AB Ewemaskiner, Stockholm and were supplied this firm by AB Soderhamns, Verkstader of Soderhamn, Sweden.

HOW WESTERN GEAR SERVES THE FOREST PRODUCTS INDUSTRY

on the long run...

WESTERN GEAR FOREST INDUSTRY PRODUCTS SAVE YOU MONEY BECAUSE

...quality costs you less!

For more than 70 years, Western Gear's name on gear drives has been a standard of quality in forest products industry installations. Western Gear speed reducers and gear drives have become standard equipment in the lumber and pulp and paper mills of the West, and more Western Gear drives are in use in these mills than all other makes combined. ■ Users know why Western Gear forest products industry drives are favored. First, Western Gear's intimate knowledge of the industry enables them to engineer and manufacture to customers' exact needs. Secondly, Western Gear's high standards of quality guarantee rugged, reliable, trouble-free performance. And thirdly, Western Gear's years-ahead engineering anticipates user requirements...and usually gets there first with the answer. ■ Western Gear's experience in electro-mechanics and infinitely variable speed power transmission can solve your drive problems.

For information, write, wire or phone collect to: **WESTERN GEAR CORPORATION** Industrial Products Division, P.O. Box 126, Belmont, California • LYtel 3-7611

WG INDUSTRIAL PRODUCTS DIVISION

Western Gear speed reducer driving jack ladder

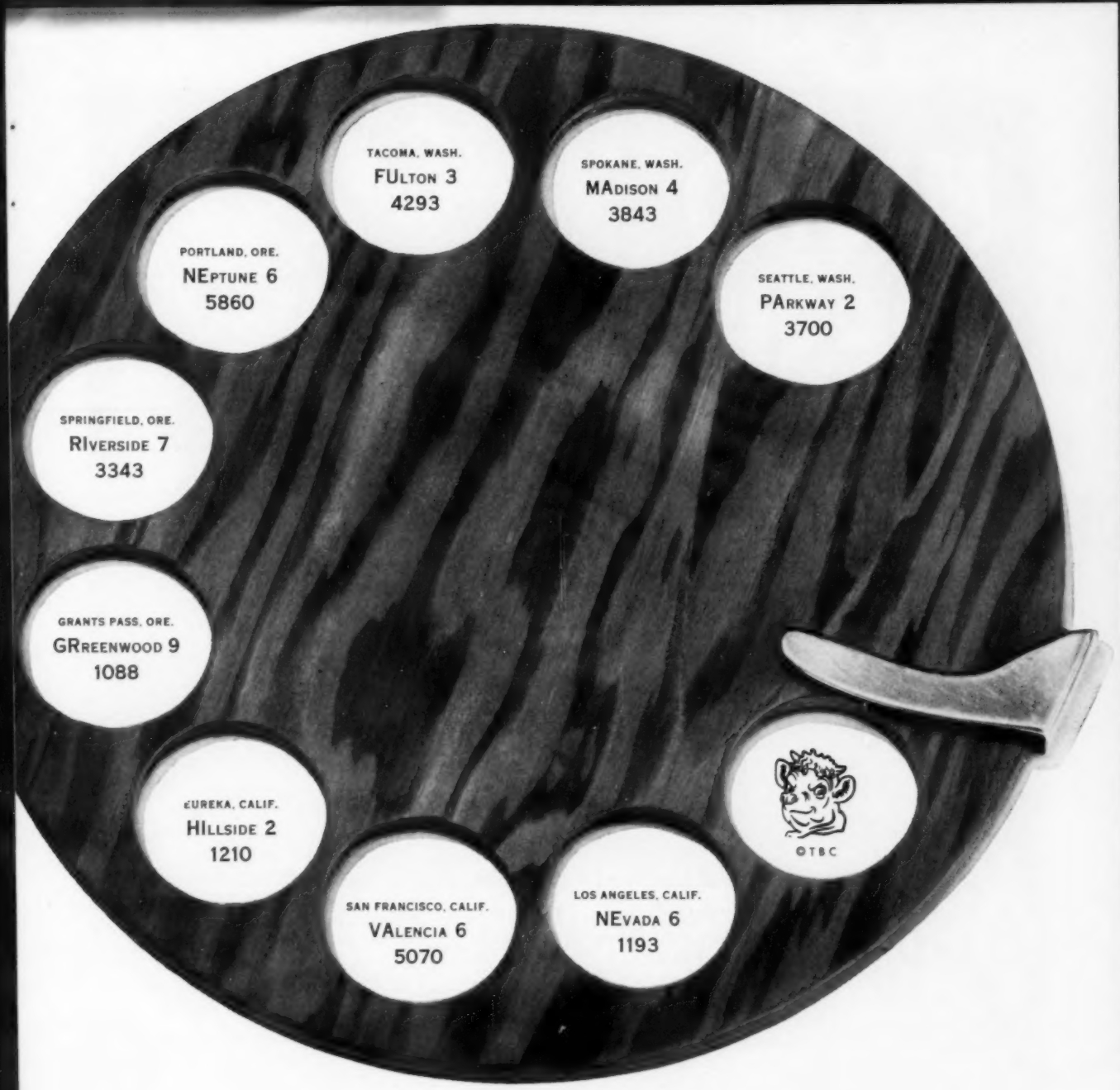
Western Gear side entering drive to screen chest

Western Gear unit power conveyor carrying chips to digestors

Western Gear speed reducer powering conveyor carrying chips to silo

Western Gear unit powering conveyor to two strand scraper

Western Gear vertical drives on stock blending chest



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AT YOUR
FINGERTIPS

Wherever you are, pick up the telephone and get service fast from your nearest Borden representative for adhesives. Tank car, tank truck, or drums of resin are available on short notice, serviced by experienced men located near you for your convenience.

This quick and handy service is backed by Borden's 25 years of manufacturing knowledge in "tailoring" adhesives to fit your specific job need.

Phone your nearest Borden representative or write The Borden Chemical Company, 6010 Airport Way, Seattle 8, Washington.

THE BORDEN CHEMICAL COMPANY

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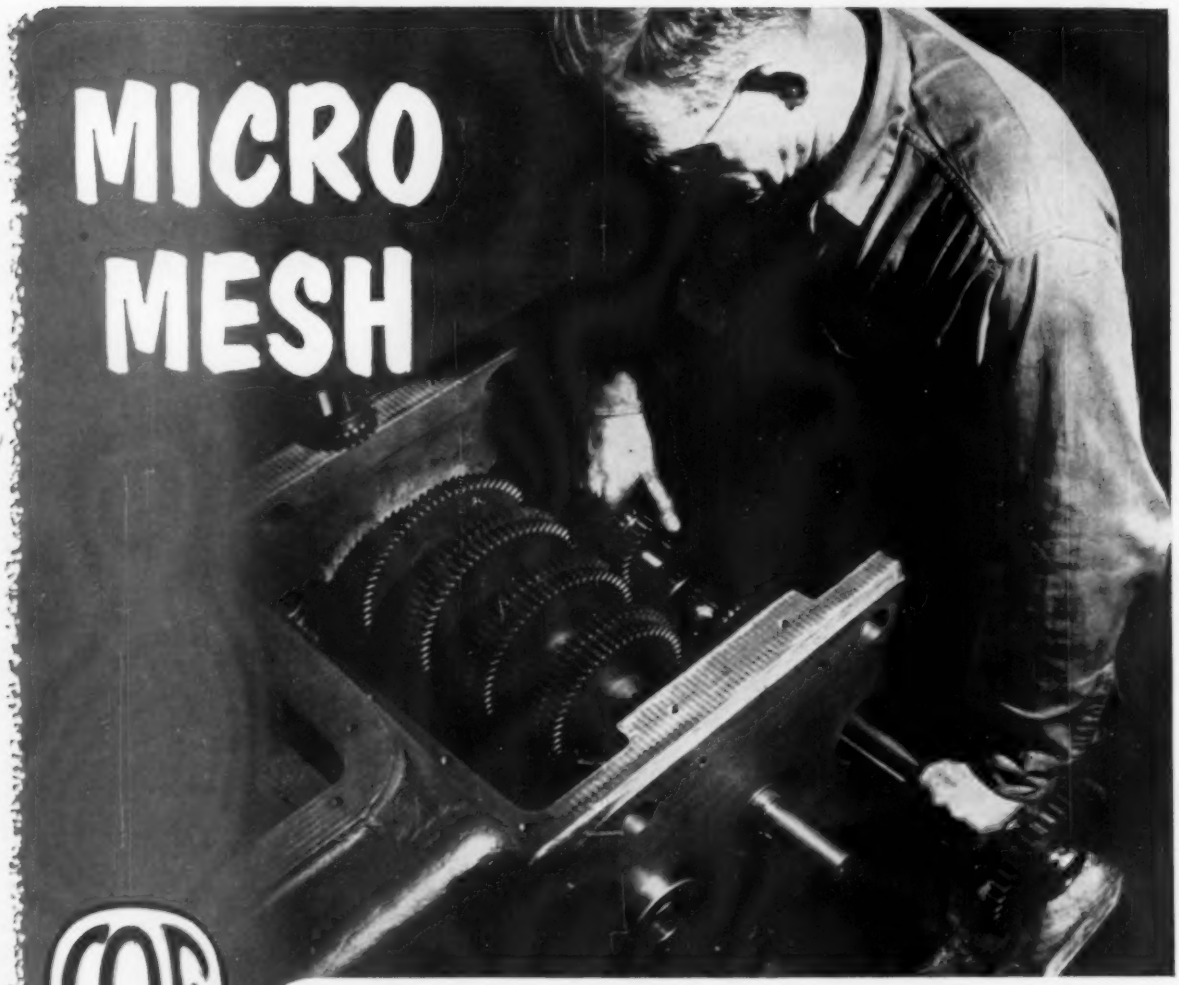
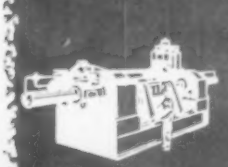
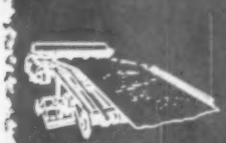
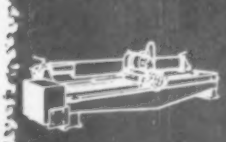
MICRO MESH



COE







To provide instant means for cutting 150 different thicknesses of veneer in increments of .002" an ingenious quick-change feed gear box is available in Coe Lathes. The desired thickness is selected by shifting the positions of convenient hand controls.

Each gear and pinion must mesh perfectly. A micro finish is also essential to prevent vibration in the knife and avoid "chatter" that would result in "rough veneer".

These facts are well known at Coe where the building of high quality veneer machinery has been a specialized activity since 1852.

Skill and ingenuity in designing and precise machining of all parts are essential but these basic factors would be of little avail if a perfect fit were not obtained in the assembly.

Duffie McKee, above, who is assembling a feed gear box, has been with Coe since 1925, a period during which he has probably aided in building over 300 lathes.

McKee's experience and that of other skilled Coe workers are factors that have aided in gaining widespread preference for Coe veneer machinery in which

Quality IS THE PRINCIPAL INGREDIENT

The COE MFG. CO.

PAINESVILLE, OHIO • PORTLAND, OREGON

LATHES CLIPPERS DRYERS KNIFE GRINDERS

CHEMICAL
COMPANY
© BORDEN CO.

"This truck will do it easily..."

—says E. W. MORIGEAU, of Polson, Montana

"We're hauling 9 million feet on adverse grade, most of it four per cent. We could have gone out another way, but it would have been a 60-mile haul. It's only a 30-mile haul over the mountain on adverse, but this truck will do it easily!"

So says E. W. Morigeau about the use of Autocar Diesel in hauling ponderosa pine in 8000 foot loads from the Rattlesnake Logging Unit to the Plum Creek Lumber Co., at Pablo, Montana. When you investigate this quality truck, you'll understand why loggers can choose the adverse route and cut distances *safely* with Autocar.

Starting with the finest basic components, Autocar engineers designed for extremely rugged service, utilizing extra strong nut-and-bolt construction, extra strong alloy steel, heat-treated frame, advanced steering geometry, precision-balanced drive shafts to prevent vibration and a multitude of other quality features. Yes, the custom-engineered Autocar Diesel is, indeed, built to take it... steep grades, ice and mud, and deliver top payloads! It will pay you to get the full story from your local Autocar representative today. You'll learn how you, too, can earn more with this quality motor truck...

...the forest industry's proved cost-saving diesel

AUTOCAR

When you get down to factual comparisons your logical choice is...

Autocar
"World's Finest"

Division of
White Motor Company
Exton, Pa.

5,000 FEET OF PANEL PER HOUR

Bradley Plywood Corp. trims panels in one pass on an automatic Mereen-Johnson No. 600 sizing unit

"Only three men operate our No. 600, compared with five for our slow parallel push-type saws," says M. J. Newsome, plant superintendent of the Bradley Plywood Corp., Savannah, Ga. "Not only does the Mereen-Johnson No. 600 give us a faster, more uniform cut, but it also leaves edges smoother to minimize resawing."

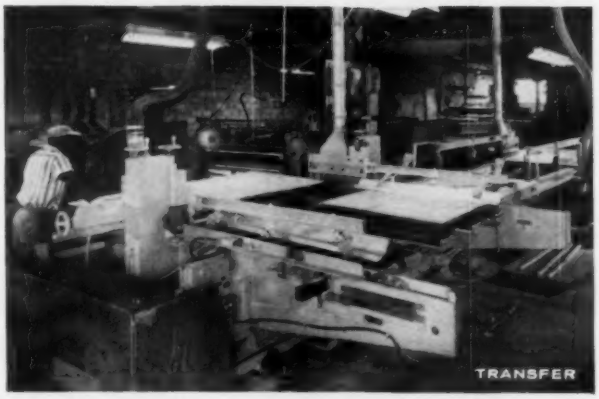
The 25-year-old Bradley Plywood Corp. manufactures hardwood ply panels including the well known eastern "Beauty Wall" and "Dixie Wall" panels. About 200 people are employed full time in the 150,000 sq. ft. plant.

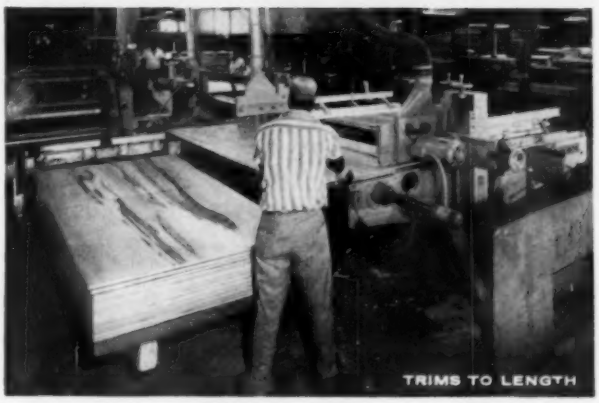
"Our first M-J machine was a #300 Double Cut-Off Saw purchased more than eight years ago," Newsome continues. "It is in operation in our Savannah Door Company division. The machine handles up to 1,800 doors a day with such a smooth cut that edge sanding is not needed.

"But the newer No. 600 unit is essential to all our panel sizing. We produce 12 stock sizes from 30″x60″ to 48″x96″ with a ten opening hot press. I'm sure this M-J unit could serve two hot presses, if necessary, although it runs near capacity when we double up for ¼″ material.

"Mereen-Johnson factory service equals the best," Newsome ends. "We've never had a production holdup caused by a parts delay. In fact, with M-J reliability, downtime has given us no cause for worry."

TRIMS TO WIDTH


TRANSFER


TRIMS TO LENGTH

• For complete cut-off and sizing information, write to Mereen-Johnson on your company letterhead, describing your application.

MEREEN-JOHNSON MACHINE COMPANY
4401 LYNDALE AVENUE NORTH MINNEAPOLIS 12, MINNESOTA

CUT-OFF SAWS • DOUBLE CUT-OFF SAWS • MULTIPLE CUT-OFF SAWS • TENONERS
GANG RIP SAWS • VENEER & PLYWOOD SIZERS & JOINTERS • RESAWS

"Everyone profits from unitized lumber!"

says Joseph V. Fahey, Wiggin Terminals, Inc., Boston, Mass.

Wiggin Terminals, Inc., handles and stocks lumber for wholesalers and is therefore in the middle of the distribution pattern. Mr. Joseph V. Fahey, Superintendent, sees advantages for everybody when lumber is packaged. He says, "The wholesaler, carrier, retailer, and ultimate consumer benefit when lumber is packaged in a standard unit. The cost of handling and the time necessary for handling packaged lumber is considerably reduced; inventory and control are simplified; and the lumber reaches the ultimate consumer in infinitely better condition than when it is handled piece by piece. Wiggin Terminals is now working on revisions to its present tariff which will reflect reduced rates in all stages of the handling operations for a standard package unit."

In Mr. Fahey's experience . . . "We have found that Round Steel Strapping stands the strains of shipment better than flat strapping, reducing breakage by 25% to 30%. It leaves the lumber in better condition, and actually costs less per linear foot."

You Can Save handling time, inventory costs, loss from breakage and theft . . . and deliver lumber in better condition . . . by unitizing your lumber shipments with USS Steel Strapping.

Technical Advice is available from our staff of strapping specialists who will look over your operations and advise on the best solution to your packaging problems. Since U. S. Steel Supply also handles USS Heavy Duty Flat Strapping in addition to Round Steel Strapping you can be sure that our recommendations will include the form of strapping and the type of strapping tools that best fit your procedures. This service is without obligation to you.

WRITE FOR FREE CATALOG. Just fill in the coupon for a free copy of our latest product line catalog, describing many of the benefits available from USS Steel Strapping.

USS is a registered trademark

A Complete Strapping Service . . . Strapping—Tools—Technical Assistance

USS **U. S. Steel Supply Division of United States Steel**

steel service centers and complete strapping service coast to coast

U. S. Steel Supply Division
U. S. Steel Corporation L-40, Dept. L-100
208 South LaSalle Street, Chicago 4, Ill.

Please send me a free copy of your new product line catalog.

Name_____

Company_____

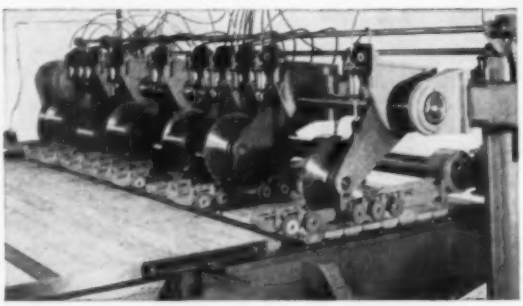
Address_____

City_____ **State**_____

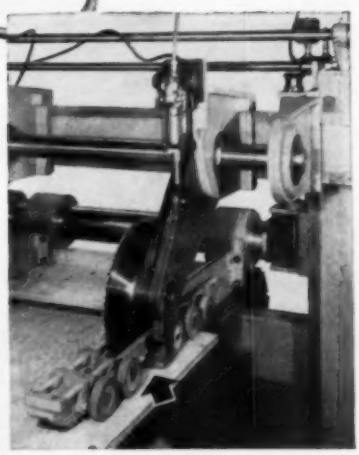
NOW!
FINGER TIP CONTROL FOR SLAT BEDS

JENKINS *leads the way in modern production*

Precision — accuracy — superior performance — flexibility — yours with modern Jenkins woodworking equipment like the new slat bed pictured above. All these quality features have made Jenkins the pace-setter of the industry . . . and now the unique, new portable control panel that permits *finger tip control* of all power stations from any vantage point around the machine. Here's further proof that the best of fine woodworking machinery bears the Jenkins name.



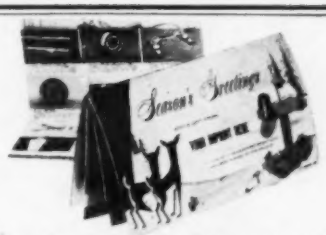
Ten saw-equipped Uni-Lifts on this slat bed allow operator to cut panels to any width needed. Multiple cutter set-up is also used for texturing. Quick response of Uni-Lifts plus finger-tip control permits panel width or surface texture pattern change at a flick of the finger while machine runs at production speeds.



Special roller bearing (arrow) adjusts to thickness of stock, assures consistent depth of cut regardless of surface irregularities. Rubber-wheeled holddowns remain in effective position when saw is lifted or removed for sharpening.

JENKINS DEALERS: **EAST** — J Forbes, Montvale, N J • H C Whitlock, NYC • G Skinner, Deansboro, N Y • H W Krehnbrink, Baltimore • **MIDWEST** — Bob Holtson, Dayton, Ohio • Tom Clancy, Detroit • Green (Weiss), Chicago • Evan Kroll, Peru, Ind • **SOUTH** — Garrison, Statesville, N C • W P Childs, Atlanta • Palmer, Jacksonville • Jack Flanders (Woods), Little Rock • Tri-State, Dallas • D M Patterson, El Paso • **WEST** — Cascade (Dowling), Chehalis, Wash • Kirk Hall, San Jose, Calif • Buck Patterson, Whittier, Calif • **CANADA** — Upton Bradeen & James, Toronto • Cascade (Dowling), New Westminster, B C

ENGINEERED AND BUILT BY KOHLER-JOA KJ **CORP., SHEBOYGAN FALLS, WISCONSIN**



THIS GIFT GIVING IDEA IS SO SIMPLE

it's a wonder someone didn't think of it before . . .

If YOU have the problem of selecting the Christmas gifts that must please EVERY ONE of your employees, prospects or customers, the smartest way out is TO LET THEM PICK THEIR OWN GIFTS.

The above pictured GIFT-BOOKARD is the simple, sensible and economical way of doing just that. It enables you to say "Thank You" to anyone . . . without first trying to read their minds . . . and without the inevitable mistakes.

The Gift-Bookard is a combination of personalized Greeting Card, a registered Gift Certificate in the form of a postage paid reply card, and a colorful booklet offering recipients a choice of 24 impressive gifts.

The Gift-Bookard eliminates all work and worry on your part. All you do is order the exact quantity you need, whether 50 or 50,000. We imprint the covers (or you may design and print your own) and supply mailing envelopes. Each person who receives a Gift-Bookard from you picks the one gift he or she prefers, by mailing the attached Registered Gift Certificate card back to us. We supply the gifts, wrap them and ship them prepaid . . . all for only $6.50 each.

A special feature of the Gift-Bookard is the useful and worthwhile nature of the gifts, each of which is valued to $10. and is unconditionally guaranteed. The 24 gifts are shown in full color and almost anyone would enjoy personally choosing and using any of these beautiful gifts.

What's more, you have tastefully exposed your name to the recipients twice . . . once with the Gift-Bookard, then with the gift. You save time, labor and money through group purchasing and handling . . . you create lasting goodwill impressions on your customers, prospects or employees . . . all for the modest $6.50 price.

Fact is, leading executives have said that the Gift-Bookard is the most important new idea for solving the problems inherent in obligatory gift giving to come along in many a year.

The next move is yours. If you'd like to see a sample Gift-Bookard, fill in the coupon below and mail to us — no obligation of course. Or . . . possibly you can refer this ad to someone in your company who might be interested.

IMPORTANT FACTS TO KNOW . . .

The U. S. Senate, in an effort to close "loopholes" in existing tax laws, has recommended a clampdown on tax exemptions for business expenses. The amendment would LIMIT DEDUCTIBLE GIFTS TO A $10 VALUATION. (This excerpt is from Page 1 of the N. Y. Herald Tribune of June 21st, 1960.)

Gallery of Gifts, Inc., 80 Park Ave., N. Y. 16, N. Y.

---------- **CLIP AND MAIL** ----------

Gallery of Gifts, Inc., 80 Park Ave., New York 16, New York

Gentlemen:

We use approx._____gifts each year in the $6.50 price range. Please send sample of your Gift-Bookard to us. We understand there is no obligation.

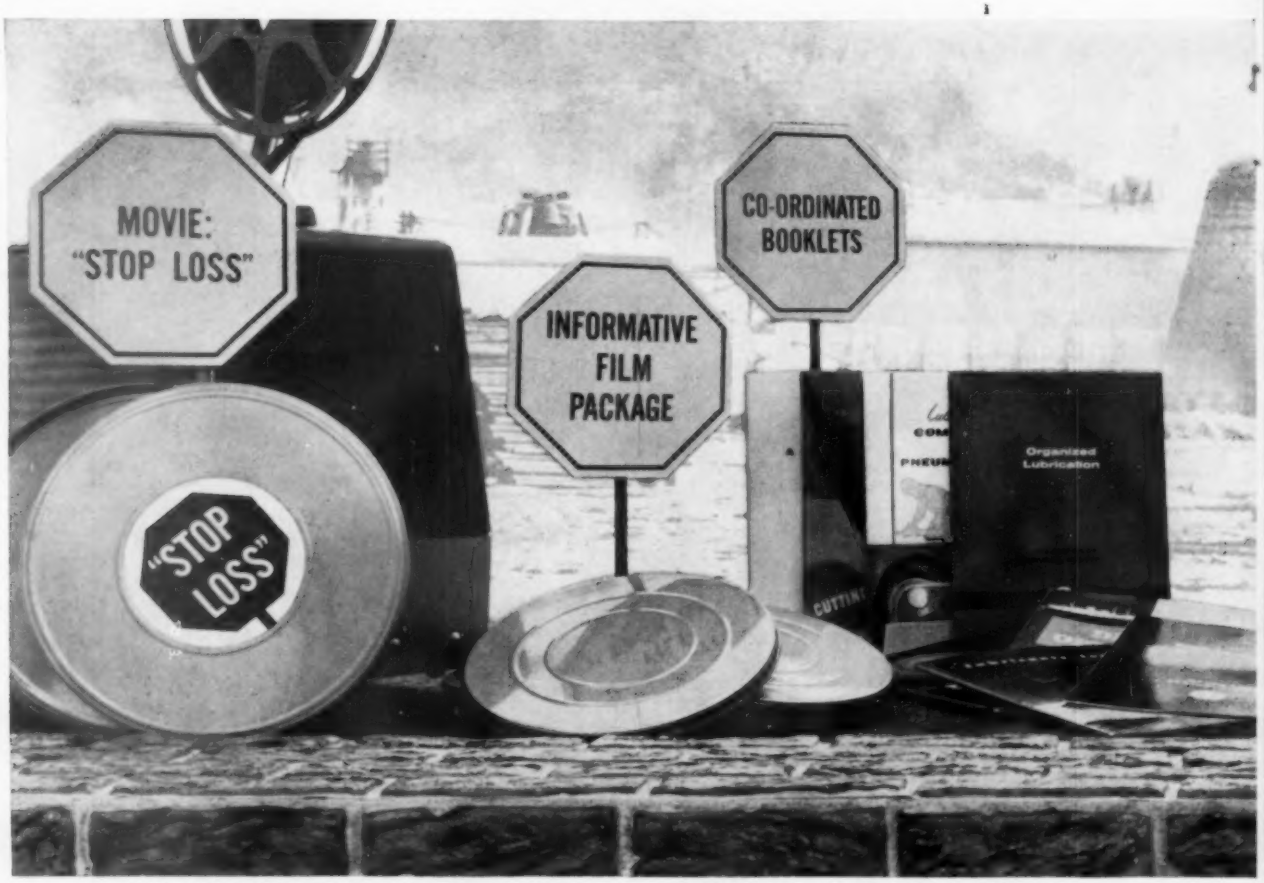
Name_____

Title_____

Company_____

Address_____

City_____ **Zone**____ **State**_____ **LU**



MOVIE: "STOP LOSS WITH ORGANIZED LUBRICATION," a new 20-minute color-and-sound film that dramatizes the opportunities for cost control through Organized Lubrication.

INFORMATIVE FILM PACKAGE for mill departments consists of movies on greases, hydraulic oils, cutting oils, etc., designed to help those involved with their selection and application.

HERE ARE THE TOOLS THAT CAN HELP YOU

INCREASE YOUR NET PROFITS

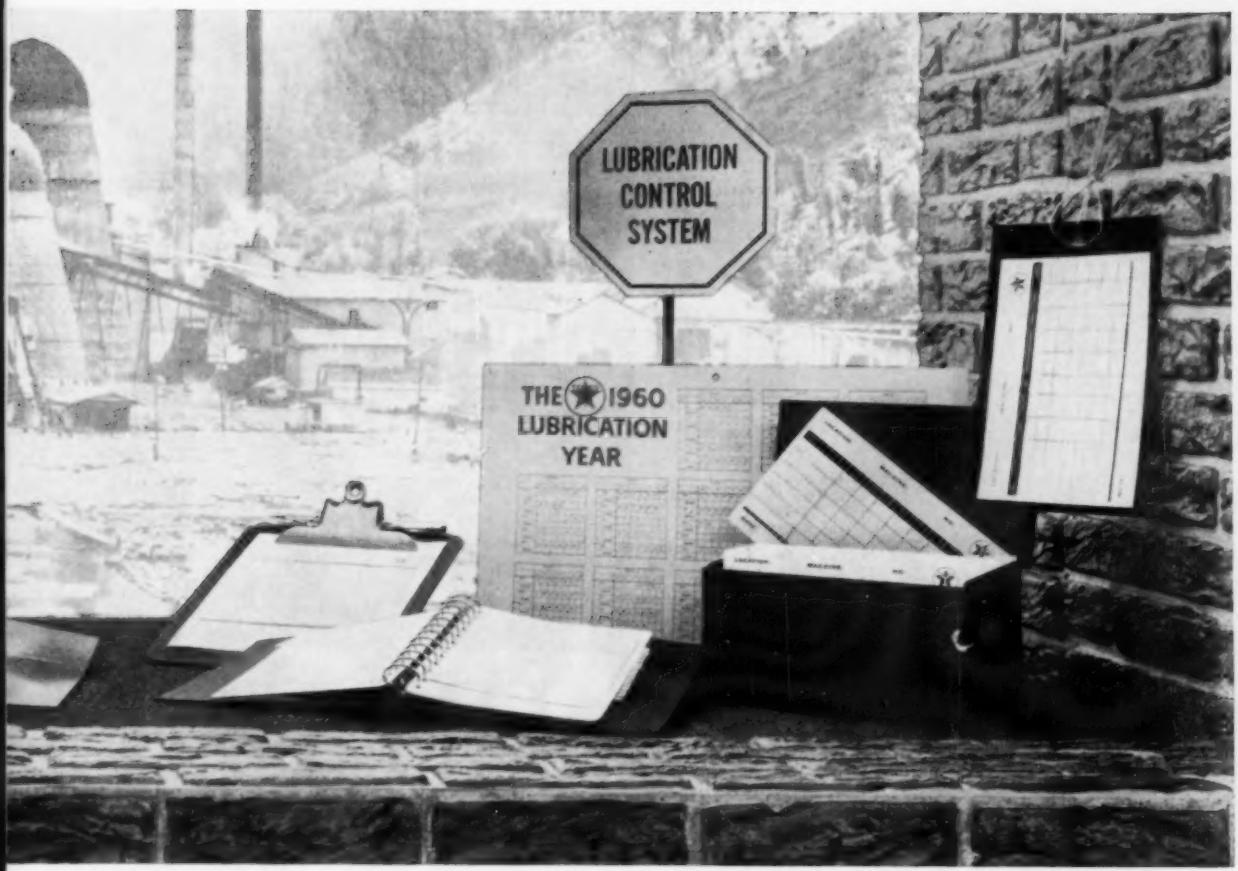
Texaco's new "Stop Loss" Program is designed to cut maintenance costs by modernizing lubrication practices. If yours is an average mill, the results can add 4 per cent to your net profit.

Even if your mill is a highly efficient operation, it is *still* virtually certain that there is an opportunity for cost control that you are overlooking – either partially or completely. It involves your lubrication practices.

Here's the reasoning: Most equipment failures can be traced, either directly or indirectly, to improper lubrication practices. Organized Lubrication could have prevented those failures – and the resultant savings would have gone directly into profits.

The 4 per cent figure is not hypothetical. It's what the Small Business Administration has found the average U. S. industrial operation can tack on to profits by *organizing its lubrication.*

Texaco's Program is designed to help you. Texaco has developed a "Stop Loss" Program specifically designed to help you cut maintenance costs via better lubrication practices. It will help you stretch equipment life, minimize downtime, reduce lube inventory, even cut purchasing costs. It costs virtually nothing to install, yet will start turning maintenance savings into profits almost immediately.



CO-ORDINATED BOOKLETS covering almost every facet of lubrication can be used as guides in specific areas.

TEXACO LUBRICATION CONTROL SYSTEM takes the guesswork out of all lubrication scheduling—makes sure that the right lubricant goes in the right place at the right time.

BY AS MUCH AS 4 PER CENT!

Can your mill pass this test?

Q. Is there anyone in your mill with direct responsibility for all lubrication? Yes ☐ No ☐

Q. Is there any mill-wide system for making sure that equipment gets lubricated on schedule? Yes ☐ No ☐

Q. Are your oilers qualified men with a knowledge of the mechanisms to be lubricated? Yes ☐ No ☐

Q. Have you made a lubrication study to determine if the right lubricants are being used at the proper frequencies? Yes ☐ No ☐

If the answer is "no" to any of the above questions, it's virtually certain that a Texaco "Stop Loss" Program can improve your profit picture.

See for yourself how "Stop Loss" works! Texaco has just released a new color-and-sound movie to dramatize the benefits of good lubrication practices. It's called "Stop Loss With Organized Lubrication" and we think it would be profitable for you to see it. For an early showing in your mill, mail the coupon today! Texaco Inc., 135 East 42nd Street, New York 17, New York.

MAKE YOUR RESERVATION TODAY!

TEXACO INC., Dept. LU-10
135 East 42nd Street
New York 17, N. Y.

I would like to see your new movie "Stop Loss With Organized Lubrication." Please call to arrange a showing.

Name_____ Title_____

Firm_____

Address_____

City_____ Zone____ State_____

TEXACO

One of a Series
of FURAFIL FACTS

DEPENDABILITY

A FURAFIL® 100-S PLUS

A successful glue trial is always encouraging; but more reassuring is the same acceptable performance month after month and year after year.

Resin glues extended with Furafil deliver dependably because:

1 Furafil is the co-product of a closely controlled chemical reaction.

2 Furafil's ligno-cellulose is in a form which is readily reactive with the phenolic resin solids.

3 Furafil is quality tested at every step of its manufacture.

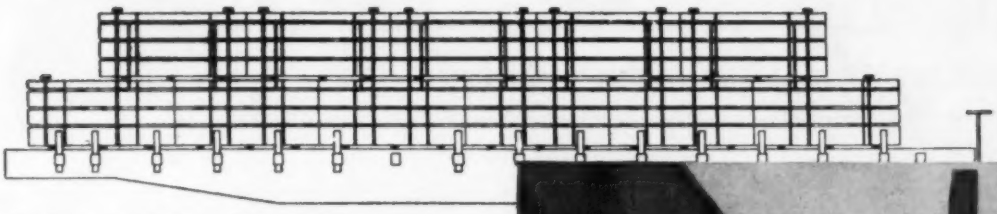
4 There is ten years of proven performance back of every bag.

See your glue supplier for further details on his recommended Furafil-extended glues.

The Quaker Oats Company
CHEMICALS DIVISION

The Quaker Oats Company
CHEMICALS DIVISION
334T The Merchandise Mart, **Chicago 54, Illinois**
Room 6154T, 815 Superior Ave., **Cleveland 14, Ohio**
Room 534T, 120 Wall Street, **New York 5, New York**
Room 434T, 48 S.E. Hawthorne Blvd., **Portland 14, Oregon**

A message from Signode for lumber mills...and receivers



Drawing based on Section 5, Figure 6, AAR open top car loading rules, 1960

Strap... wrap... ship clean and dry

Let Signode help you make the most of the many advantages of this AAR approved lumber load for flat cars

At the mill: The availability of flat cars is much better than that of wide-door box cars.

At the mill: Loading is fast and easy. No special lift equipment needed.

At the mill: Stub stake load permits use of protective wrapping, and practically eliminates tearing of wrap.

As received: Strapped and wrapped lumber is clean and dry.

As received: Unloading can begin at once—is simple and fast. Receiver can use his mechanical handling equipment to greatest advantage... reduce unloading and storage cost.

As received: Wrapped lumber packages are weather protected for year-around outdoor storage...are easy and fast to tally...can often be forwarded to consumer unaltered. Undetected pilferage is eliminated.

Meanwhile, back at the mill . . . Your Signode man can be helping you in big and little ways, saving you money with the latest developments in centralized strapping and in time-saving ways to strap, handle, store and load lumber, and veneer and plywood too. Let us put him in touch with you now. In the meantime, write for free copies of one or more of these informative Forest Products Bulletins:

Flooring • Flush Doors • Logging • Millwork • Particleboard
Lumber Yard Handling Methods • Plywood • Sawmill Applications • Studs
Tree Seedlings • Veneer • Handling Methods for Packaged Lumber

SIGNODE

First in steel strapping

SIGNODE STEEL STRAPPING CO.

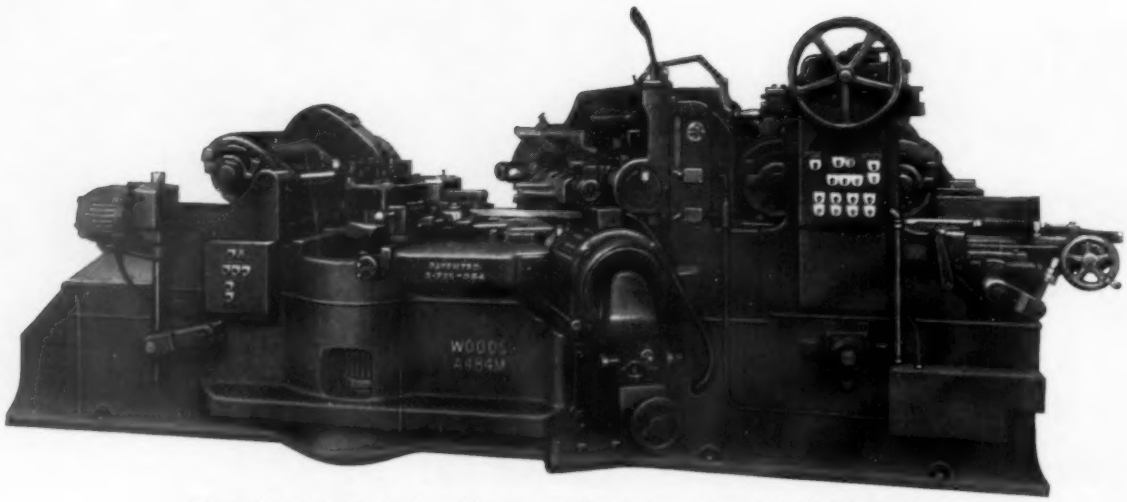
2616 N. Western Avenue, Chicago 47, Illinois

Los Angeles 1, 659 E. Gage Ave. • Pittsburg, Calif., Loveridge Rd. • Eugene, 2472 Willamette
Portland 8, P. O. Box 4226 • Seattle 4, 1750 Occidental Ave. • Spokane, 617 Paulsen Bldg.
Canadian Steel Strapping Co., Ltd., Vancouver, B. C.

Serving the Industry Since 1852

It's Revolutionary!

A-484M Diagonal Planer and Matcher



Upgrading of all stock, with astonishing improvement in finish on the lower grades now made possible with this revolutionary DIAGONAL PLANER and MATCHER.

DISTINCTIVE FEATURES

- ★ Elimination of sniped ends.
- ★ Smoother finish around knots and cross grain, with less tendency to loosen knots.
- ★ Continuous support of stock on bed plate before and after cut on bottom head.
- ★ Less lead required in guide as angle cutterhead serves to hold stock against the guide fence, preventing side friction, feed roll wear and edge sniping.
- ★ Less power consumption in feeding stock.
- ★ All operating adjustments can be made from the front or working side of machine.
- ★ Wide face helical gears for feed works, assuring continuous tooth mesh and quieter operation.
- ★ Independent quick green stock lift for first bottom feed-in rolls.
- ★ Bottom head cylinder can be pulled out for changing knives without disassembling motor.
- ★ Individual ball bearing housings for all cutting units.
- ★ All ball and roller bearings housed in dust-proof housings. Grease lubricants for roll bearings. Regulated wick oil feeders used on all cutting units. Forced feed lubrication for feed gears.

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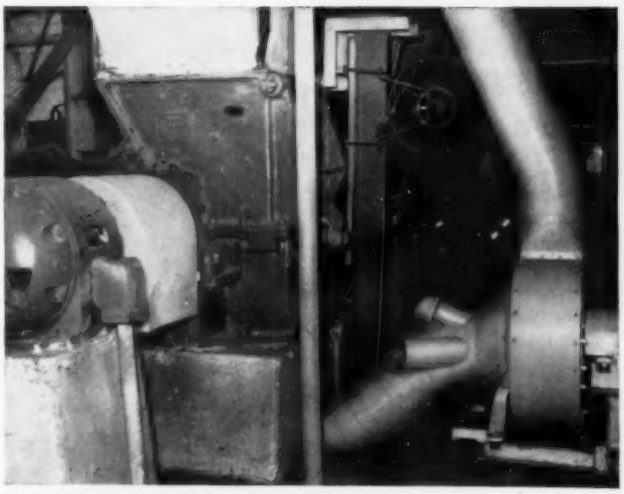
S. A. WOODS MACHINE CO.

27 DAMRELL STREET

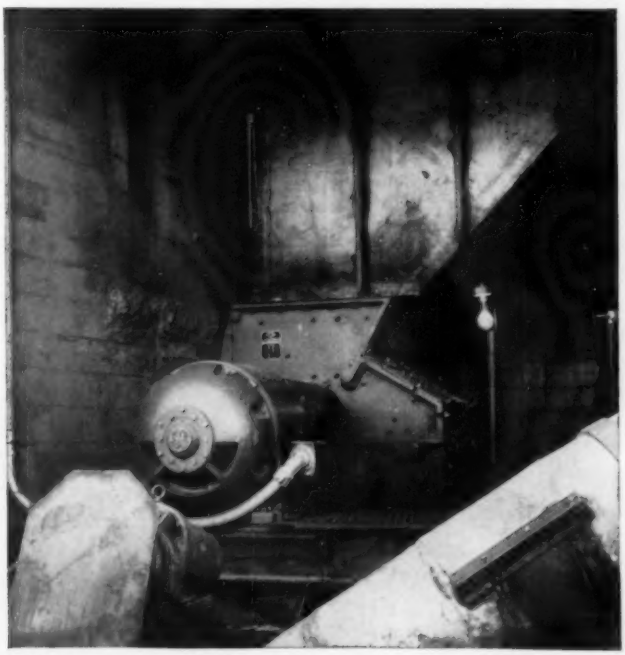
BOSTON 27, MASS.

SHREDDERS AND WOOD HOGS

for wood waste reduction



Waste and oversize wood particles are reduced to proper size by this Jeffrey Shredder, then conveyed by air to an overhead collector, screens and storage.



This Jeffrey wood hog reduces heavy waste for fuel.

JEFFREY SHREDDERS and WOOD HOGS can be supplied to reduce a wide range of wood material to sizes you want.

Jeffrey's "Library of Materials" offers answers to your shredding problems. Materials and equipment have been tested in the laboratory and in the field. This equipment has proved strong, rigid and able to deliver the heavy impact required for shredding bark, wet veneer scrap, waste wood and other tough, fibrous materials.

JEFFREY SHREDDERS can reduce waste and oversize wood chips to uniform sized particles suitable for making particle board.

JEFFREY WOOD HOGS can handle wood waste in various sizes, shapes and species for fuel. The wood hogs have no knives that need resharpening, so can be safely used for shredding wood containing nails and other small pieces of metal.

Jeffrey engineers, with their many years' experience in reducing hundreds of different kinds of material, are well equipped to assist you in selecting the Jeffrey shredders and wood hogs best suited to your work.

Available catalogs describing the machines can also help you choose equipment to meet your requirements. For your copies, write The Jeffrey Manufacturing Company, 850 North Fourth Street, Columbus 16, Ohio.

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JEFFREY

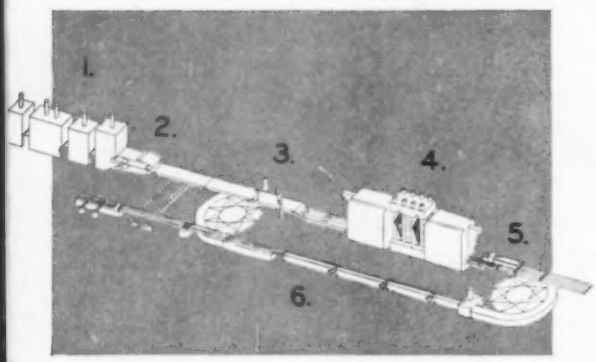
BOWATER BOARD COMPANY

—new 160 million square feet per year, dry process hardboard plant relies on Washington press and forming equipment.

LOCATION: Catawba, South Carolina

PLANT ENGINEERS: Bowaters Engineering & Development, Inc.

PRODUCT: Smooth-both-sides "Bowater board"



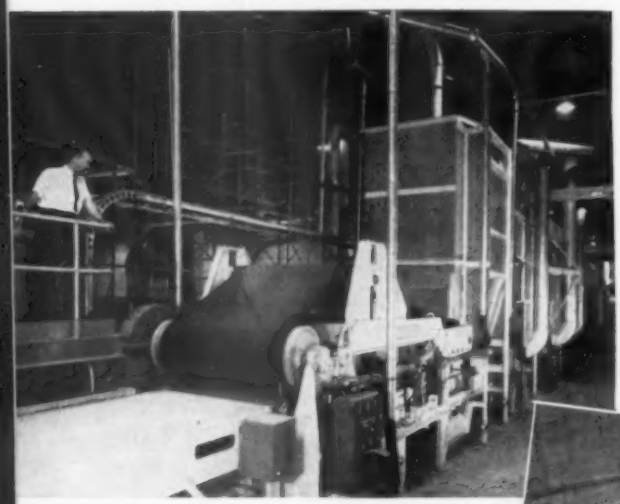
Forming line in the Bowater plant is designed for daily production of 500,000 square feet of hardboard. Washington equipment includes (1) felter, (2) precompressor, (3) cutoff and trim saws, (4) press, (5) board separator and (6) caul conveyor system.

WASHINGTON IRON WORKS

The 5,274-ton, 20-opening, 56" x 202", simultaneous-closing Washington hot press is one of the keys to high production and efficient operation of the new Bowater plant—the largest dry-process hardboard mill in the U. S.

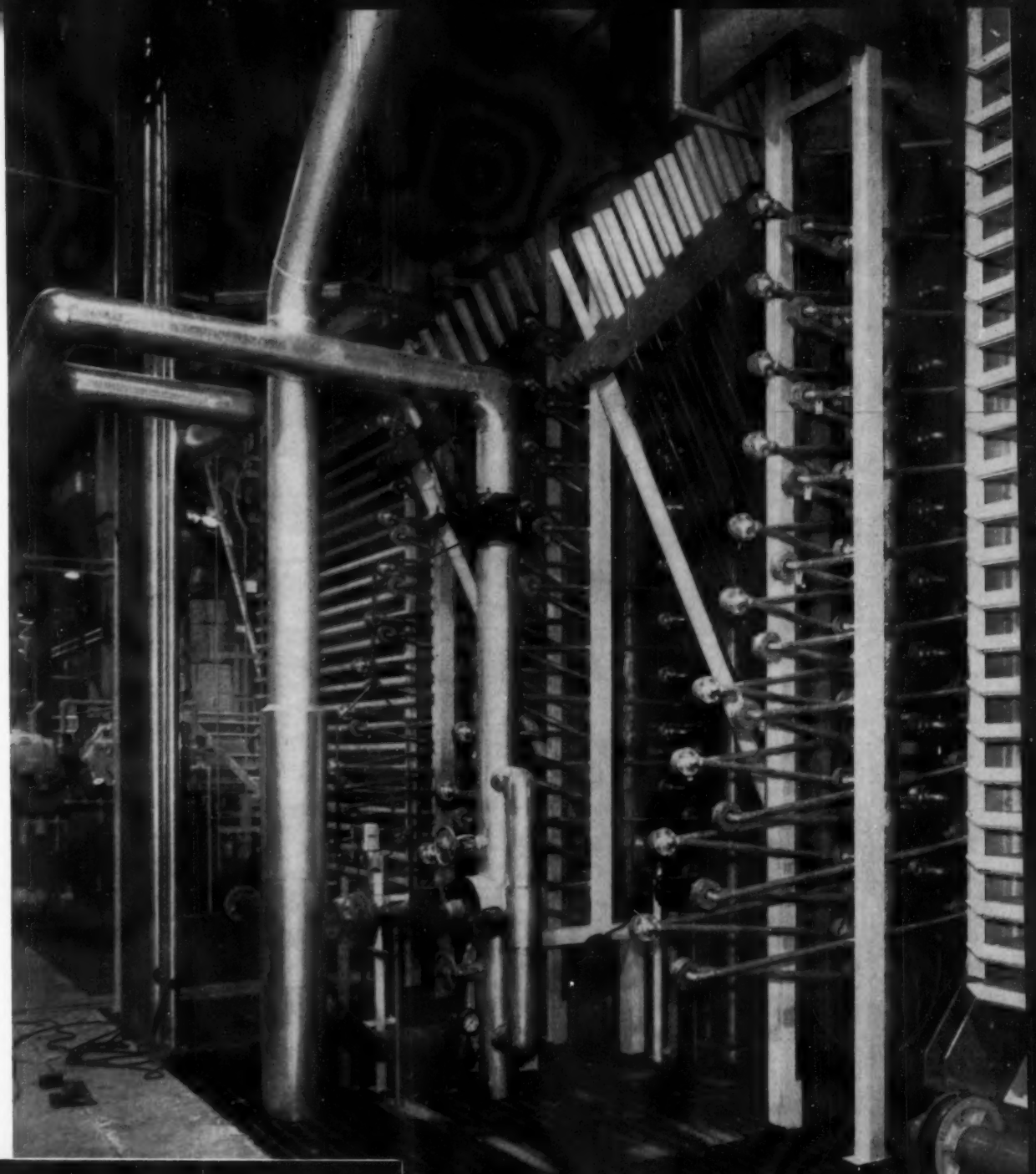
The entire forming line equipment supplied by Washington Iron Works includes felter, precompressor, mat cutoff and trim saws, board separator and circulating caul conveyor system, all custom-engineered for the Bowater installation. This equipment was designed jointly by Bowater and Washington engineers, working together from the time the new mill was in the initial planning stages.

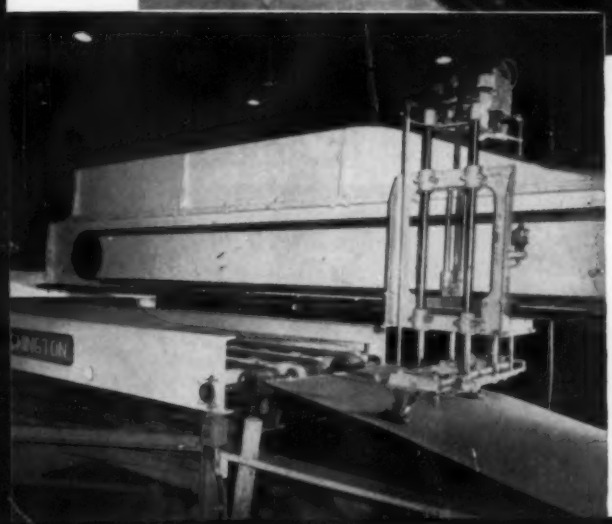
Washington press equipment is the choice of many other outstanding producers of hardboard, flakeboard, particle board and plywood. Combined capacity of board plants using Washington equipment is now over 30 acres per day, half a billion square feet per year. If you are considering a new board plant, we cordially invite your earliest possible inquiry. Washington Iron Works, 1500 Sixth Ave. South, Seattle 4, Washington.



Five oscillating nozzles delivering selected fibers permit controlled thickness, composition and density in the felting process. Shaving and precompressing follow, in the Washington unit shown above, after which the mat is cut off, trimmed and conveyed to the synchronized caul conveying system.

A unique feature of the Bowater forming line is the Washington-built caul turntable shown at right. A combination of chain and belt conveyors makes the caul system fully automatic and continuous. Washington cutoff and trim saws can be seen at the upper left. Photo on opposite page shows how boards are separated from the caul sheets after hot pressing by the Washington-built separator, using vacuum cups on a reciprocating carriage which operates while the cauls are moving.





Heart of the Bowater forming line is the 20-opening, 56" x 202" Washington hot press, above. The patented simultaneous-closing mechanism permits closing speed of 530" per minute. The press operates on a 2-1/2 minute cycle, producing 4' x 16' hardboard panels from 3/32" to 3/8" in thickness.

WASHINGTON PRESSES

WASHINGTON IRON WORKS

and ACCESSORY EQUIPMENT

HOT PLATE PRESSES • PULP BALING PRESSES
SPECIAL HYDRAULIC PRESSES • AUTOMATIC LOADERS AND UNLOADERS
COMPLETE BOARD FORMING LINE EQUIPMENT

Brochure on request. **Washington Iron Works, 1500 6th Ave. So., Seattle 4, Wash.**

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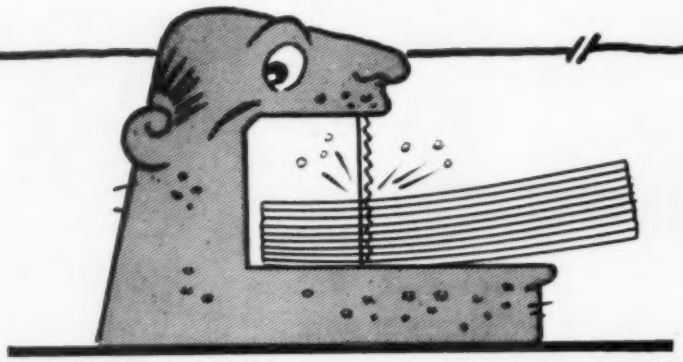
Sweed VEN-COR

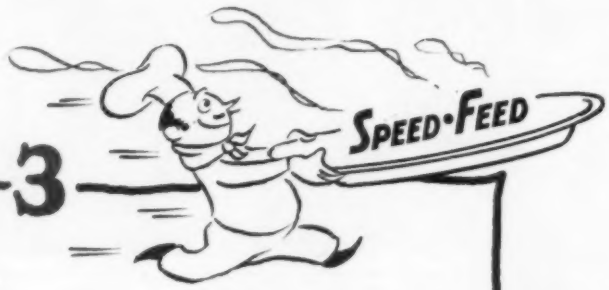


Sweed VEN-COR II

"SMARTER THAN PEOPLE .... AT SAWING VENEER"

BILL McCORKLE '60

3



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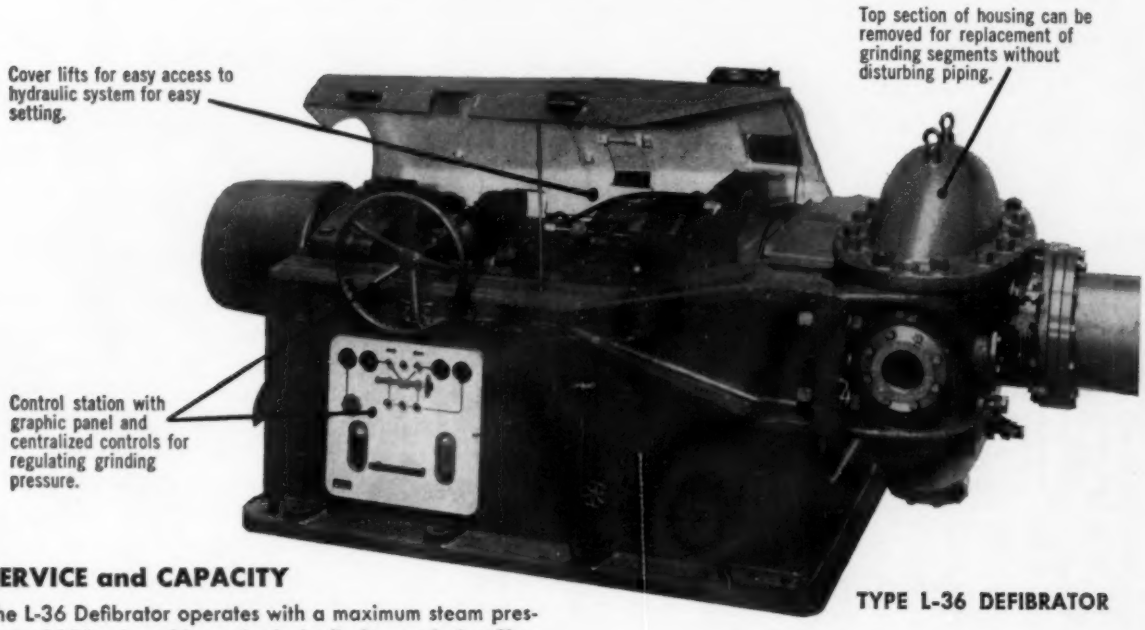
FOR CONTINUOUS PULPING, THE NEW L-36 DEFIBRATOR

offers

- Close control of grade and uniformity of pulp
- Precise adjustments easily made with hydraulic controls
- Continuous service with low maintenance


Top section of housing can be removed for replacement of grinding segments without disturbing piping.
Cover lifts for easy access to hydraulic system for easy setting.
Control station with graphic panel and centralized controls for regulating grinding pressure.

TYPE L-36 DEFIBRATOR

SERVICE and CAPACITY

The L-36 Defibrator operates with a maximum steam pressure of 180 psi, and is used principally for producing fiber for hardboard, insulating board, and roofing felt. It is conservatively rated at 80 tons of hardboard fiber per day. It is also used for semi-chemical pulping and asphalt dispersion with capacity up to 150 tons per day. The size of the Defibrator motor in either case is between 400-600 HP.

CONSTRUCTION

Solidly built for continuous heavy duty service, with double acting thrust bearings and one radial bearing, all lubricated through a circulating oil system by means of a pumping unit with safety controls. Two 36" discs, one rotary and one stationary have replaceable segments; segment holders, housing, and top cover are all stainless steel. The shaft in the main stuffing box is protected from wear by a stellited sleeve.

RELATED EQUIPMENT

Rotary feeders, screw feeders, and digester units are available for use with existing equipment, or coordinated for use with the L-36 Defibrator. Size of feeders and digester units depends on the type of process, the volume to be handled, and the capacity required.

FACTS and FIGURES

When you are planning to add pulping facilities or to modernize, we will be glad to work with you in detail, toward layout and equipment best suited to your requirements.

AMERICAN DEFIBRATOR, Inc. CHRYSLER BUILDING NEW YORK 17, N. Y. West Coast: A. H. Lundberg Mercer Island, Washington

A PRODUCT OF CHRYSLER CORPORATION

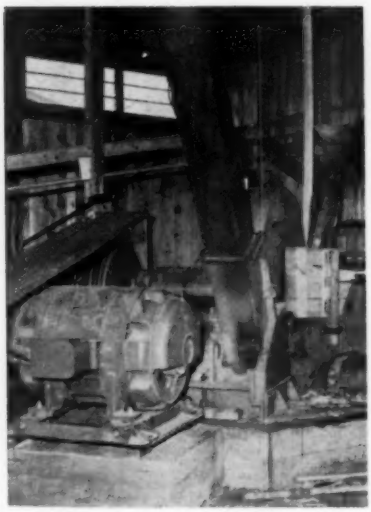
TOUGHEN YOUR FLEET WITH DODGE HEAVY-DUTIES

Dodge heavy-duty trucks for 1961 are the toughest, stingiest, workingest trucks we've ever built. Engines have been improved, beefed up all 'round. There's V8 gasoline muscle to 228 H.P., and Cummins diesel muscle to 743 cu. in. and 220 H.P. Frames, clutches, transmissions and axles have been strengthened to match. Swing-out fenders let you walk right up to the engine and service it fast. A BBC of 89¾" lets you put more load on less wheelbase, or pull a longer trailer. Those are two advantages of Dodge's cab forward design. Another: the cab simply can't go haywire, nor do you have to raise the roof to accommodate it. If you own a tilt-cab, you'll know what we mean. Toughen your fleet from a big choice of Dodge heavies. Trucks and tractors. GVWs from 19,500 lbs. to 53,000 lbs. GCWs to 76,800 lbs. Two other things to think about. The heavy-duty Dodge for your job is probably waiting your order today at a Dodge Truck Center. And now there's a 24-hour-a-day, seven-day-a-week ordering system for emergency parts. Delivery's soonest!

DODGE BUILDS TOUGH TRUCKS

DODGE

1 Incoming raw material includes bark free and barked slabs in strapped packages. Clark lift feeds 30 feet of 4-chain deck into chipper building. Hosmer slab barker handles bark on slabs. Straps of bundles are broken and two men feed material directly into chipper.



2 The Carthage chipper is a 60-inch machine. The unit is equipped with a horizontal feed. It is driven by a 150-hp motor.

Chipping Plant Aids Recovery in New England where central operation converts residue from nearby mills into chips for paper mill.

Another example of utilization of sawmill residue in New England is the Ossipee Lumber Corp. central chipping plant at West Ossipee, N. H.

The corporation, established in 1957, first researched the chip potential and found that there were approximately 14,000 chip cords of residual wood available annually within a 30-mile radius of the site.

Output of the plant, estimated at about 40 chip cords daily, is trucked by contract haulers 55 miles in 9-cord capacity vans to the pulp mill of S. D. Warren Co. at Westbrook, Me. The Ossipee Corp. is one of three chipping plants which together produce annually approximately 27,000 cords of softwood chips for Warren.

Four mills supply sawmill by-products to Ossipee. They include Charles Di Prizio & Sons at Middleton, N. H., The Kennett Corp. at Conway and the Madison, N. H. sawmill of the

Here's How One Mill Prepares Its Residues for Chipping

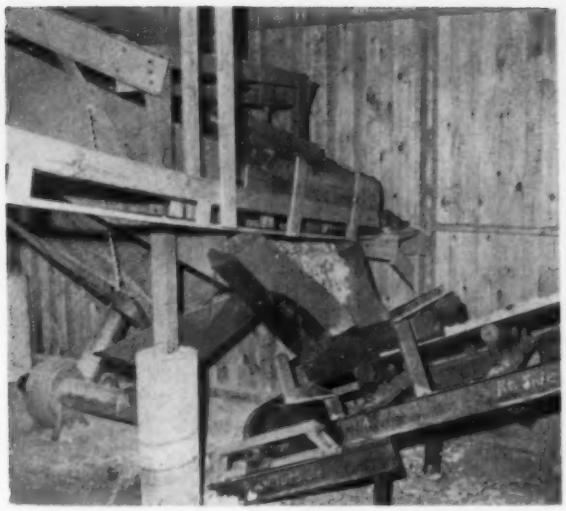
One of the mills supplying Ossipee Lumber Corp. is The Kennett Corp. which manufactures from 17,000 to 20,000 board feet daily. About 80% of output is eastern white pine with some red pine and hemlock.

Key units of the plant pictured are:

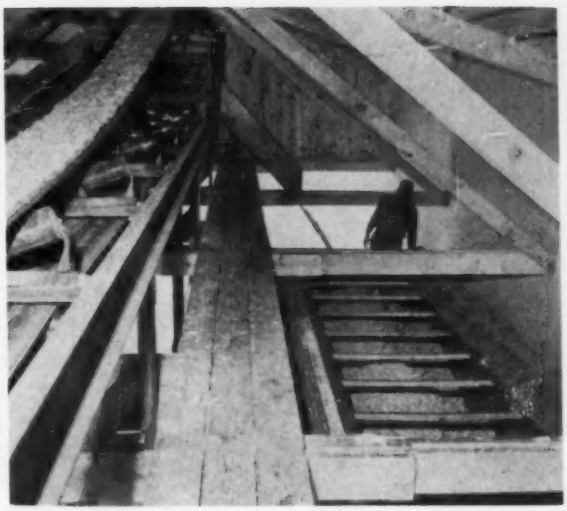
1 Mill consists of Calvert three-block carriage with remote control setworks and two circular saws. Logs sawn are above average in quality. They run three feet in diameters, from 8 to 16 feet long.

2 Hosmer L-24 barker handles diameters from 6 to 36 inches. It has 23-hp drive, including air compressor and is air controlled.

3 Debarked slabs come through at end of mill on rubber belt running parallel to belt delivering lumber to green chain (foreground). Two men pull slabs from belt, stack them in units of two tons which are steel strapped with two Acme bands for delivery to West Assipee by truck. ■■



3 Output of chipper is handled by Dillon 4x12 2-deck screen. The unit feeds directly to 100-foot long rubber conveyor belt leading to overhead loft in the van loading building.

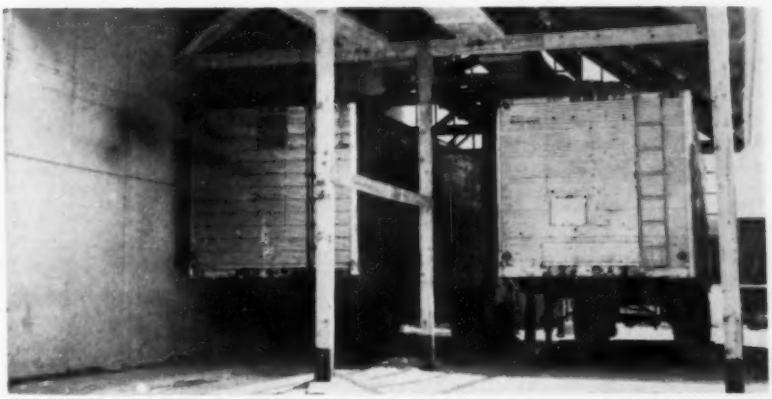


4 Chips move to separate building on 20-inch belt, at left. Two side spouts with damper control load two vans at a time. Conveyor tripper runs 40 feet in building, moves back and forth on track.

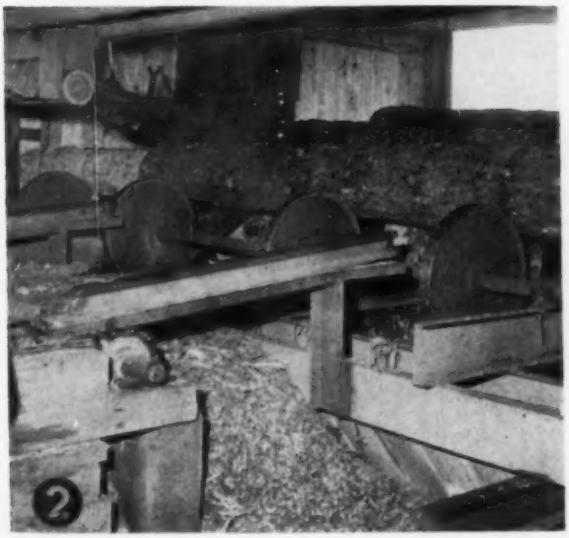
New England Box Co. at Greenfield, Mass. The latter mill is about 300 yards from the chipping plant.

National Starch Co. at Goffstown, N. H., uses the fines from the chipping operation in its Granite Board plant. About 15 tons a week is delivered.

Company officials are Lyford A. Merrow, president and general manager, and Parker Merrow, vice-president.



5 Chip loading building is a 48x45 foot structure. It will accommodate two vans at a time. ■■



Plant Produces Hardw'd Panels In Many Faces

Canadian International Paper Co., largest forest products enterprise in Canada, has concentrated five complete plants at Gatineau, Quebec, to develop one of the world's most completely integrated wood using operations.

The group includes plants which manufacture newsprint, pulp, insulating board, hardboard, plywood and ethyl alcohol.

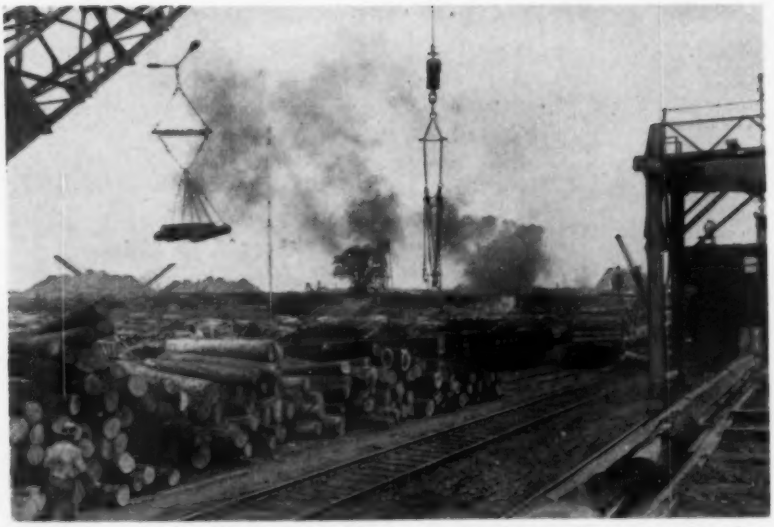
Operation of the plywood plant is discussed and pictured here.

Production capacity is 34 million square feet (¼-inch basis) a year, requiring 55,000 board feet, or 500 to 600 feet of logs daily. Hardwoods used include birch, elm, basswood, ash, oak and maple. Walnut, mahoganv, and oak are purchased in veneer form. All veneer logs come from within 225 miles of the mill. Since hardwood cannot be river-driven, delivery is by rail and truck.

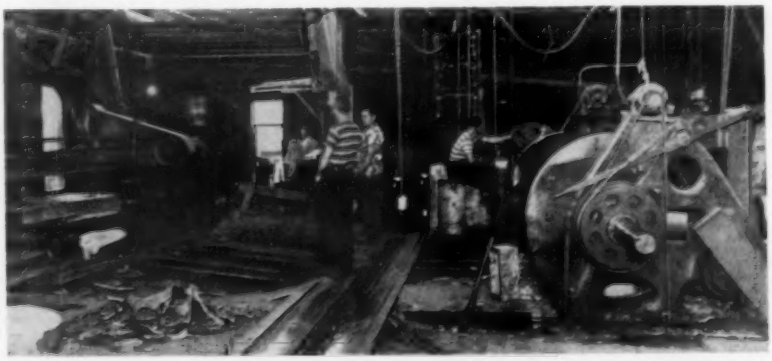
Logs are soaked in 12 soaking vats. Each vat is 35 feet long, 10 feet wide, and 12 feet deep, and has a capacity of approximately 10,000 board feet. Birch is soaked for 24 hours in water at 165 degrees F. Basswood and poplar are not heated. The vats are heated by exhaust steam from the steam engines which drive the veneer lathes.

For interior type plywood a urea-formaldehyde resin is used. Mixed glue is spread at the rate of 90 to 100 pounds per 1,000 feet of double glue line. Panel layup is as follows: ⅛, 3/16, ¼=3 ply; ½=5 ply; ⅝, ¾=7 ply; some ¾ and 1 inch 9 ply.

The boiler plant's two 200-hp boilers rely entirely on plywood waste for fuel. At peak they develop 32,000 pounds of steam per hour. Other uses for plywood plant residuals are—basswood and poplar cores for fiber board, highway fence posts and paper plug rolls; the Masonite plant uses birch and other cores as well as some chipped veneer.



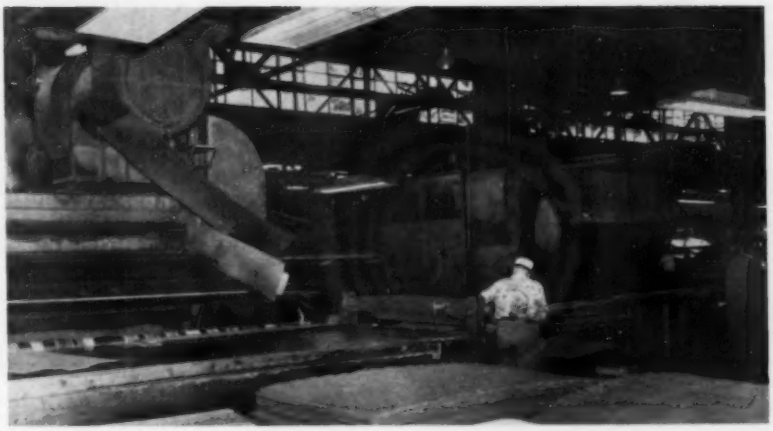
Elaborate wood handling system takes over when logs arrive at the mill. Outstanding feature of system is 4-ton Skyline which can carry logs 800 feet and deposit them in an area 250 feet wide. Here, hardwood logs are sorted as to species. Other wood handling equipment in yard includes crawler crane, track crane and vat loading crane, each of 5000-pound capacity and a 4000-pound capacity gantry crane.

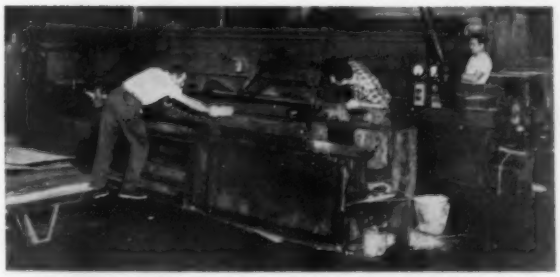


Debarking is done with 110-inch lathe-type barker with traveling scraper head. The three lathes used are powered by variable speed steam engines of about 50 hp. Logs are cut to length by 72-inch circular saw.

Face veneers and long centers are cut on 110-inch Merrit lathe. Cross banding is cut on 66-inch lathe. Both have a speed in excess of 250 feet per minute. A third 66-inch lathe barks only. Face grade veneers are cut 1/24-inch. Cross banding and centers are cut 1/12 and 3/16 inches. Peeler and clipper in background are Coe units.

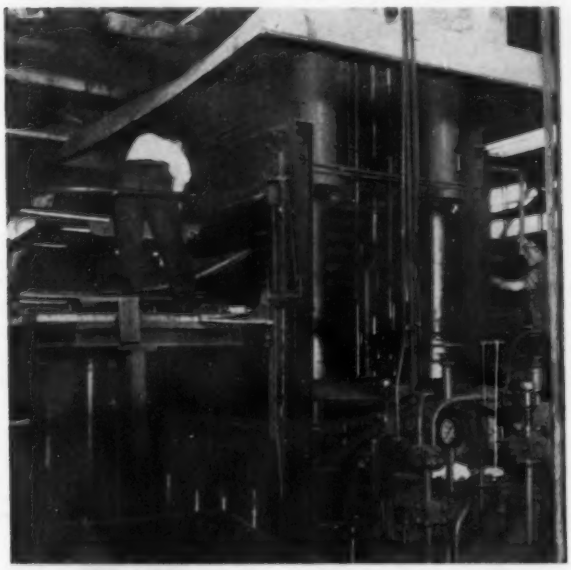
Veneer drying department consists of three dryers with the following specifications: Moore roller dryer, 8 sections, 14 feet wide, 5 levels with capacity on 1/24 veneer of 400,000 square feet daily. Merritt plate dryer, 24 feet long and 10 feet wide, 5 levels, with capacity on 1/24 veneer of 170,000 square feet daily; Coe roller dryer, 12 sections, 14 feet wide, 5 levels, capacity on 3/16 veneer of 210,000 square feet daily. Drying times for birch veneer at 270° are: 1/24—8 minutes; 1/12—16 minutes; 3/16—34 minutes. At 350° 3/16-inch basswood dries for 28 minutes.



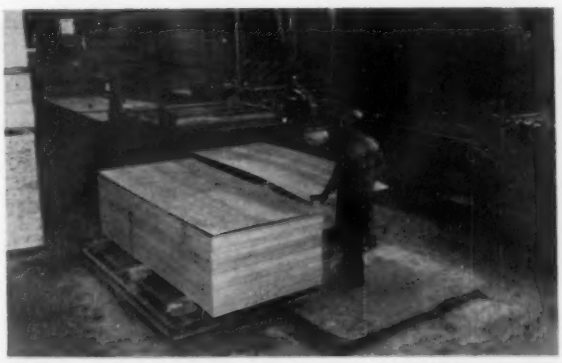


Dried veneer enters large area department for successive steps of jointing, splicing and gluing. Above, one of two Merritt traveling head jointers with two sets of cutters, removes ¼ to ⅜ inch stock and applies glue.

Battery of 6 G. M. Diehl tapeless splicers works on stock. Five have resistance electrical heating and the sixth has high frequency heating. Speed on 1/20 inch veneer is 60 feet a minute.



Dominion Engineering Co. steam-heated press is 5x8 feet nominal with 20 daylights. At a temperature of 250° F. a pressure of 250 psi is used on birch panels and 125 psi on basswood. Pressing times vary from 6 to 20 minutes, depending on thickness of panels. In the case of ⅛-inch panels, four can be placed in each opening, making a total of 80 panels per press load. Such a load is pressed for six minutes.



Six sanders work in sanding department. Above are two Yates-American 3-drum roll sanders and two Solem 4-drum endless bed sanders. Speedsander is not pictured. Sanding speed is 18 to 24 lineal feet per minute on drum units.

Principal Equipment

COE dryer, veneer reeler; MERRITT dryer, lathe, clipper, jointer; FRANCIS AND LAUCKS glue spreaders; MOORE dryer; G. M. DIEHL splicers; DOMINION ENGINEERING CO. hot press; YATES sanders; SOLEM sanders; TIMESAVERS Speedsander; TOWMOTOR forklift; ACME steel strapping. ■■

Ideas at Work

Limit Switch Controls Double Speed of Resaw

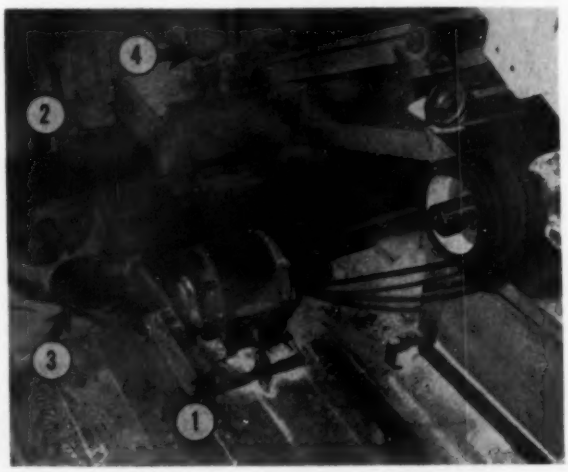
Ease of operation is the highlight of the Micro Switch controls on the Sumner 60-inch resaw with linebar at Yukon Lumber Co., Ltd., Vancouver, B. C. A hydraulic-electric unit was recently installed to operate the settings on the linebar feed. This unit consists of a drum and two fabricated cams which fit inside. Dials were affixed to the cams on the inside of the drum. Three Micro Switches were positioned inside the drum. The operating sequence is as follows:

- Set the dial at the desired position for resawing a specific size piece of lumber;
- Press foot pedal activating switch to bring the hydraulic piston to desired measurement;
- A Micro Switch slows the speed of the hydraulic piston to give accurate measurement;
- Feed lumber to saw.

Formerly the resaw was fed manually and it was a slow, costly method. The linebar can be pre-set for the next cut. The new system shown here is fast and inexpensive to install and operate. It was built with a standard hydraulic unit by Wagstaff Hoist, Ltd., Vancouver.

Electric Motor Does Two Jobs

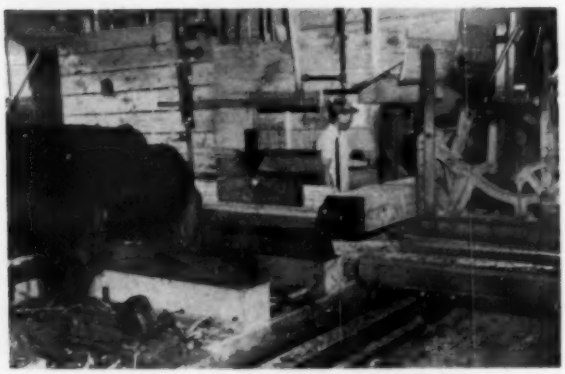
An ingenious arrangement to let one motor do work of two, has been devised by Beauregard & Sons, Ltd., of Marlboro, N. H. A 5-hp electric motor (1) drives a 2-saw Chase trimmer and the 12-inch wide rubber conveyor belt (2) which carries trimmed lumber to the green chain. Motor drives through a 20-to-1 reducer (3) to power rubber belt and through V-belts to trimmer saw shaft (right). Sections of old fire hose (4) on back of conveyor tunnel cushion impact of lumber dropped from trimmer.



Curtain Cleans Barked Logs

Scott Lumber Co., Burney, Calif., hung this curtain sweep between its recently installed Nicholson 60-inch ring debarker and the cutoff saw where the bark free logs are bucked. All debris is vibrated off the sides and bottom of the log, but small amounts sometimes lie on the top. These lengths of link chain, attached to a flat steel header, sweep such debris off. This saves wear and tear on the cutoff saw and also saves time for the operator.

Photoelectric Cells Control Deck



Photoelectric cells located on either side of the live log deck at Walker Lumber Co., McMinnville, Tenn., are so situated that their beam is broken when a log rests against the stop and loader. When turners are empty, the deck chains advance logs automatically until a log breaks the beam. Deck is controlled by sawyer, eliminating a deck man. Headrig is a Wheland unit.

Saw Filer's Room

How to repair and weld band saws told by Barry Barratt, southern district service man for Hanchett Manufacturing.

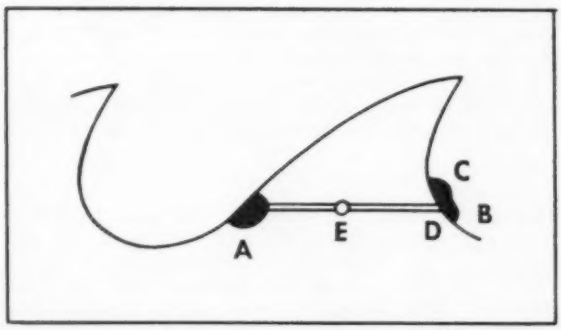
Repair and welding of band saw teeth while the saw is in the swaging clamp has been adopted by many filers as the best and simplest way to get a spiked saw back on the mill. Reasons are speed of repairing and preventing hot weld from coming in contact with cold anvil of welding clamp.

The usual method is to place the saw in the grinder with the damaged teeth in the swaging clamp and prepare the teeth for welding by filing and straightening as needed. Suitable size pieces of saw teeth from discarded saws are ideal for rebuilding the teeth.

It is good practice to select each piece slightly larger than is required to allow for filing or grinding to final shape and pitch. It will be found that with a little practice, the repaired saw teeth are amply strong—in fact nearly as strong as the original teeth.

By using this method, saws can be repaired while they are on the grinder and the saws can be repaired before sharpening. A saw with full teeth can always be returned to the mill.

Barry Barratt

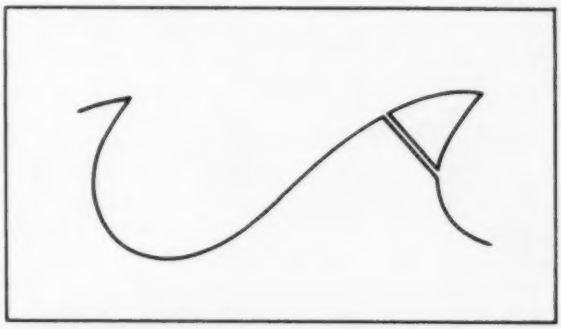


Preparation of saw and saw tooth to be welded onto the saw blade is shown in above sketch. The piece to be welded can be held in position with a "C" clamp or with vise grip pliers until the first step in welding is made. With the clamp at "A" on the back of the tooth, begin the weld at "B", on the front of the tooth. This point is just below the joint. Run the bead over the joint, slightly above point "C". When penetration of the weld metal is made at "D" and the true weld begun, this bead will absorb some of the heat. This permits better control of the weld and will reduce chance of weakness at this point from excessive sparking.

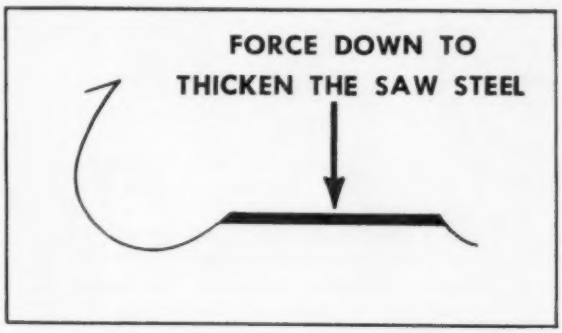
The weld is then run back to the center at "E". The clamp is removed and the operation repeated from the back edge, starting with a bead below the joint. Where the weld does not exceed one inch, forging can be left until the weld is completed. Welding from ends to center creates less stress in the metal than welding across.

Forging should be done only while the weld is at a suitable red heat and should consist of fast light blows to refine the metal in the weld, rather than heavy blows that will smooth the weld. For a good job, it may be necessary to reheat the weld two or three times. A doghead hammer to back up the welding blows and a ball peen hammer for the actual forging, make a good pair of tools.

Both ball peen hammer and doghead hammer should have almost flat faces. The weld should cool and be retempered before attempting to line up or grind the teeth to shape. Dress the weld lightly with a portable grinder and heat very slowly over an area somewhat larger than the weld. Usually on light guage saws, heating to a medium brown will leave the weld at proper stiffness. It is necessary to get into the blue range for medium and heavy gauge saws.



Weld crumble can sometimes be avoided when saws are ground down to the point where the swage is working on the weld by welding the broken teeth at an angle. This is possible where only a part of the tooth is to be replaced and in this case the swage die action is along the weld line rather than across it. Where it is possible to make a weld of this type, this is the recommended method.



A common practice in welding of broken teeth is to heat and forge the broken stub as discussed above until it is one gauge thicker. Then use a saw tooth from a saw one gauge heavier for the repair piece. This will allow fairly heavy dressing without getting the repair tooth under the gauge of the other teeth. ■■

New Marketing Concept

"You must develop and maintain markets if you are going to produce plywood."

By CHARLES MILLER, professor,
University of Washington, Seattle, Wash.

MARKETING EXPERTS. Professor Charles Miller, left, and Dr. N. H. Engle, both of the University of Washington marketing department.

EDITOR'S NOTE: Plywood Manufacturers Institute is conducting the first real thoroughgoing study of plywood marketing practices and consumer buying habits. Its purpose is to find out where plywood is going, how it is getting there and how to achieve a more orderly marketing structure. Dr. N. H. Engle, University of Washington marketing department, is conducting the study. At a session held by the PMI in Portland, Ore., on July 29, professor Charles Miller, also of the Washington marketing department, presented a talk on the new marketing concept as a prelude to a future presentation of the marketing facts being compiled by Dr. Engle. THE LUMBERMAN presents below a digest of Mr. Miller's talk. A full report on the PMI's marketing research program will be presented in THE LUMBERMAN.

The new business philosophy reverses much of our business thinking. The objective is complete consumer satisfaction with the exception that profit will flow therefrom. The company shall produce what the market wants rather than try to create a market for the company's production. The company exists to serve the customer, not that the customer exists for the company's exploitation.

Marketing considerations must govern every company problem, policy and procedure even unto production. It recognizes that production per se is not the important problem. WHAT, WHEN, HOW MUCH, WHERE and at WHAT PRICE to produce are the critical questions.

The concept challenges that one is not in business to make satisfactory products, but, by meeting customer's needs, to make satisfactory customers. The product must be adapted to the market rather than the market changed to meet the product.

Costs of production, finance, marketing and transportation are individually of little consequence. The final cost to the consumer is controlling. This total cost concept is impelling. If increased marketing costs cause decreased total cost and increase profit—that is good.

Profit, rather than volume is the company objective—or the ultimate objective is a fair share of the market at all times and if all functions are performed efficiently, profit will result.

Marketing cannot operate independently of other segments of the business. One of its base functions is to secure closer coordination between production, engineering, research, finance, transportation and marketing by permeating the entire organization with the marketing philosophy. More than 250 major U. S. companies have adopted this philosophy during the past five years and have found it provides many answers to perplexing business problems today.

The concept applies to all types of products and to all sizes of business. None is too large or too small to be immune from the benefits is has to bestow. In fact, many business leaders say that "we must accept the new marketing concept or perish."

Three most important causes of ineffective marketing strategy were listed by one manufacturer as (1) Lack of top management market mindedness; (2) Lack of qualified marketing personnel; (3) Unsatisfactory organization or coordination.

The marketing concepts do not come easily. Transition is likely to take several tortuous years of trial and error.

Change in the profit situation, speed of production, rapid spiralling of competition, have been breathtaking during the past decade.

Competition no longer consists of selling a product against similar competitive products—it is selling against dissimilar products with the same basic utility—it is selling against every other product and service fighting for the consumer's dollars. There is competition within the industry, competition between related industries, competition between non-related industries with fast growing multiplicity of products. A new competition added to these is from abroad.

The reciprocal free-trade idea has produced results. This plus phenomenal economic recovery of West Europe and Japan have permitted these areas to successfully challenge American producers in our own markets.

Of the plywood industry, it is fair to say that DFPA has done and is doing a highly efficient job of selling and advertising for the industry. It has done one of the best association jobs in the country increasing demand through product research, quality control, advertising, personal promotion and application of imagination and initiative to the industry's promotional problems. The Plywood Manufacturers Institute is also doing a good job of marketing research and education.

It is likewise fair to ask—to what extent do the individual units in the industry—producer, distributor and dealer—tie in their own planning, selling and advertising programs with their association's efforts? How many

are content to say "We pay our association dues, they will do the advertising, research, education and most of the selling needed?"

The modern marketing manager will not accept that philosophy of irresponsibility. In a buyer's market, maximum intelligent selling effort must be applied to secure maximum profits—and this necessitates individual producer, distributor and dealer effort and cooperation. Soon the maximum effort may be necessary just to hold the present share of the market. How recently has your sales organization been brought up to date and revitalized?

Do you know how your salesmen sell? Has your advertising program, if any, been re-examined recently in the light of the new developments in advertising, in the market, in competition and in consumer expectancy? Can you sell all you can produce without breaking market price? Are you doing the kind of selling that resists the extra discount the buyer claims another producer is offering:—the kind of selling where you can be as tough as the buyer when you know your quality, price and market are right:—the kind of selling that brings customers back?

Markets must be earned and maintained by providing the right products and services, at the right time, at the right place, packaged right, at the right price and at a profit. Markets are never a birthright to any producer. You have earned markets—but so far they have come the easy way for most of you. You will maintain those markets only by providing superior product-utility, product services, marketing services at a reasonable profit to each link in the production-marketing chain. *You must produce and maintain markets if you are going to produce plywood.*

Failure to provide stability of production or price when it is within the power of the industry to do so, or insistence on more-than-normal profits—any place along the marketing line, will stimulate substitute products to enter the market. It has happened in other areas—it can and has happened in plywood. Plywood is not different in this respect.

One wonders if the fir plywood industry has been over-produced in terms of products or under-produced in terms of markets; if more of the type of service-selling here discussed were provided by each unit, the industry might have increased total sales and resulted in less price defalcation.

Veneer Plant, Sawmill Planned at Colombia

Tropical Timber Products, Chicago, Ill., has announced plans to build a veneer plant and sawmill in Colombia, South America, to process logs coming from a 500,000-acre tract of timberland recently purchased by the firm. Timber is primarily hardwood.

The veneer plant will peel about 1 million surface square feet daily. The mill will cut about 40,000 feet a day. Veneer will be tailored to customer specifications. Core and back stock will be supplied in various thicknesses. Stock will be shipped dry, complete with face, back and cores, ready to lay up. Species will include Honduras mahogany, rosewood, cedro, cativa, teak, walnut, guayacal and other hardwoods.

The plant is expected to be producing in 1961. Jack O'Brien, formerly with Fort Vancouver Plywood Co., Vancouver, Wash. and later active in installing plywood plants in Mexico, will be general manager.

•

• William Welch has been named vice president and sales director for Pacific Plywood Co., Dillard, Ore.

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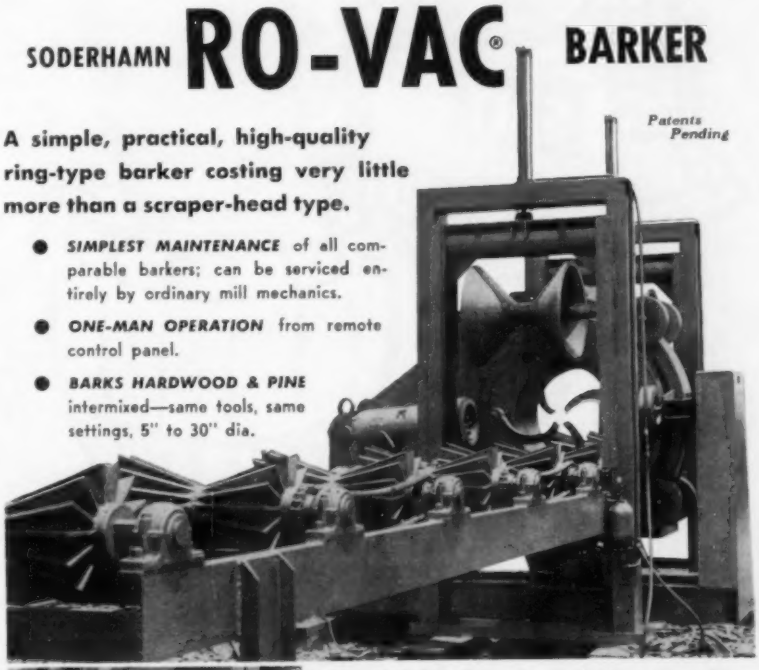
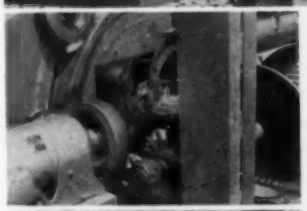
Patents Pending

A simple, practical, high-quality ring-type barker costing very little more than a scraper-head type.

- ***SIMPLEST MAINTENANCE*** of all comparable barkers; can be serviced entirely by ordinary mill mechanics.
- ***ONE-MAN OPERATION*** from remote control panel.
- ***BARKS HARDWOOD & PINE*** intermixed—same tools, same settings, 5" to 30" dia.





The RO-VAC barks efficiently most hardwoods as well as pine

The RO-VAC is an entirely new rotor type barker, utilizing simplest vacuum principles to maintain pressure on tool tips, constant for all diameters. There are no belts, pulleys, chain or sprockets on rotor drive, which is by simplest friction principle. Ruggedly built, all welded steel, and can be skid-mounted for use as semi-portable unit. Tool pressure readily released, rebuilt in less than a minute. Uses only 40 HP including both conveyor drives. Lineal speeds from 0 to 50 fpm, infinitely variable. Exclusive "Alligator Grip Feed Rolls" positive holding, self-centering. Tool tips replaceable.

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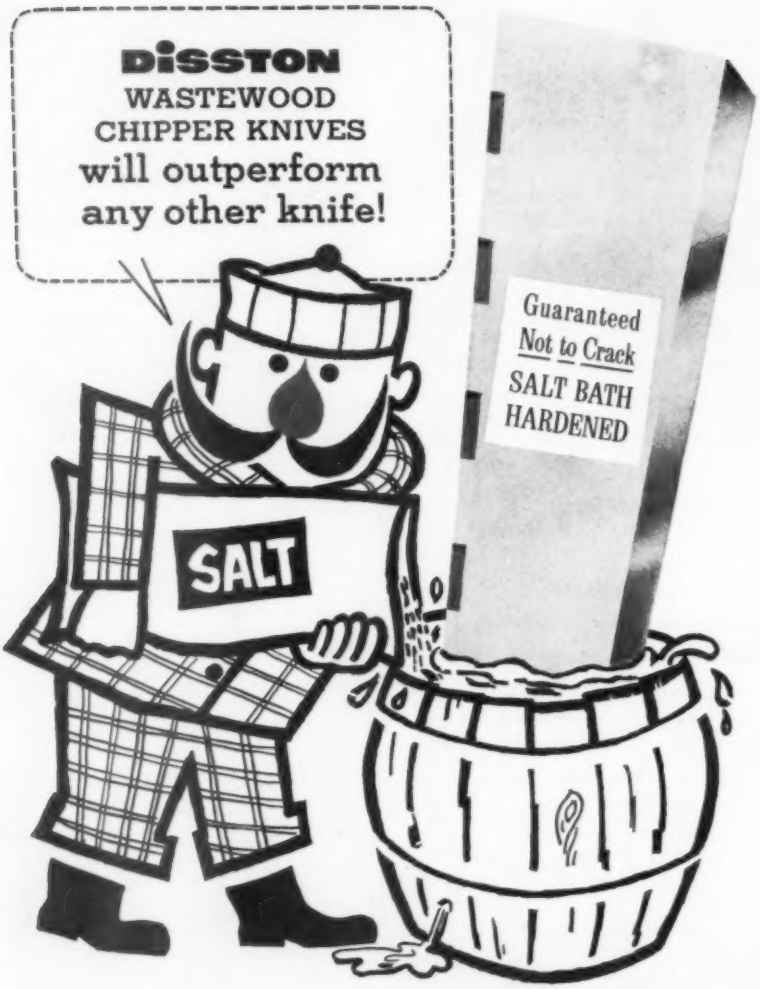

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We'll help you check your knife performance. Disston will supply you with a newly developed series of record sheets that will determine the *actual values* in *any* chipper knife you now use. The figures these records ask for draw out an accurate picture of grinding history, cutting efficiency and total performance of your waste wood chippers.

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Talk to your mill supply dealer about Disston Waste Wood Chipper Knives . . . for a FREE supply of "knife-life" record sheets, write: *Disston Division, H. K. Porter Company, Inc., Philadelphia 35, Pa.*

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Lester Harding Retires At Columbia-Hudson

Lester J. Harding, vice-president and general manager of the Columbia-Hudson Lumber Co., Portland, Ore., recently retired. A former director of West Coast Lumbermen's Association and for several years chairman of WCLA public relations committee, he was also a past president of Columbia Basin Sawmills group, treasurer of Lumbermens Industrial Relations Committee and president of Columbia River Log Salvage Co. After a long waiting for opportunity to travel, Mr. Harding plans some future activities probably in connection with the industry.

L. J. HARDING

Starting as a bookkeeper for Glendale Lumber Co., Glendale Ore. in 1919 he later became secretary for the Sibley Mills Lumber Co. at Columbia City, Ore., and later of Ingham Lumber Co. In 1935 he became treasurer for Pacific States Lumber Co., of Tacoma, Wash., and upon closure of that plant joined H. A. Templeton Lumber Co. of Portland as sales manager for the old Cobbs-Mitchell plant of Valsetz.

In 1914 he became general manager of the Westport Lumber Co. at Westport, Ore. and remained as general manager when it was sold to Shepard & Morse Lumber Co. of Chicago. Before joining Columbia-Hudson, he also served as general manager of Edward Hines Lumber Co., Westfir, Ore. division.

•

Particleboard Plant Planned in Texas

Southern Pine Lumber Co., Diboll, Tex., will build a particleboard plant at Pineland, Tex. It will be a relatively small operation, producing about 26,000 square feet a day utilizing a German processs. Output will go to Southern Pine's two furniture manufacturing plants and to the Southwest market.

The plant will use dry wood residues from the Pineland planer. Particle fines not used in the particleboard will be diverted to the firm's molded wood toilet seat plant.

•

• W. H. Myers, formerly manager of Alexander-Stewart Lumber Co., Prineville, Ore., has been named general manager of McCloud River Lumber Co., McCloud Calif., succeeding R. A. Murphy who is retiring.

HEIL Dryers help boost sales 16%

Management at Pope & Talbot's new particle board plant at Oakridge, Oregon, attributes a 16% sales increase to better utilization of wood residue.

Two HEIL Dryers are used. The small dryer at left reduces moisture content of Douglas fir flakes to about 6%. The larger dryer handles planer shavings.

One shift currently produces 350,000 sq ft of ¾-inch particle board, flakeboard and mixed particle-flakeboard. Building trades use the particle board for floor underlayment and core stock. Flakeboard goes into table tops, desks, counters, store fixtures.

Fast, uniform drying of wood products

Wood chips, flakes, shavings or sawdust can be dried *uniformly* in a matter of seconds by a HEIL dryer — then pressed into high-quality board . . . or other products.

Exclusive 3-pass drum provides 3-stage drying in a single, compact unit. Compound showering flights on drying drums eliminate surging . . . keep particles flowing.

Wood by-products are carried on a stream of hot air. Light particles dry quickly and are whisked away. Heavier particles move more slowly. All emerge uniformly dry.

Write, wire or call for further information

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Standard models are for logs 5"—36" diameter and lengths of 20', 24' and 26'. Special models available for West Coast hardwood and veneer logs up to 55" diameter and 30' lengths.

Write for complete information

In South, address Machine Products Co., Gadsden, Ala.

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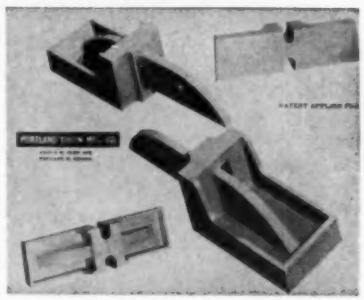

FOREST PRODUCTS STOCKS

NOMINAL QUOTATIONS

La Salle Securities Co., Investment Securities, 208 La Salle St., Chicago, Ill.

September 2, 1960

STOCKS	Paid 1959	This Month Bid	This Month Ask	Last Month Bid	Last Month Ask
Ambassador Oil, Com.	$ ——	4	C	4¼	C
American Forest Products Com.	1.00&S	28	30	29½	32
Anderson Tully Co., Capt. Stk.	20.00	350	OW	350	OW
Atlas Plywood, Com.	——	16	C	15¼	C
Atlas Plywood, $1.25 Pfd.	——	25½	27½	24	26
Biles-Coleman Lbr. Co., Com.	•	19	OW	19	OW
Boise Cascade Corp. Com.	.60	19⅜	21	17¼	18¼
George E. Breece Lbr. Units	.05	2½	OW	2½	OW
British Columbia Forest Prod., Com.	——	11½	C	11¾	C
Brooks-Scanlon, Inc. "A"	.80	19	OW	19	OW
Brooks-Scanlon, Inc. "B"	.80	19	OW	19	OW
Calaveras Land & Timber Co., Com.	2.00	25	27	24	25½
Calcasieu Paper Co., Com.	1.50	35	OW	30	OW
Cascades Plywood Corp., Com.	1.75	27	29	27½	OW
Central Coal & Coke Co., Com.	1.00	31	33	31	33
Cherry River Boom & Lbr., Com.	——	48	OW	48	OW
Chicago Mill & Lbr. Co., Com.	1.25	20½	22	20	22
Cloquet Lumber Co., Com.	•	1	OW	1	OW
Consolidated Naval Stores, Capt. Stk.	30.00	1060	OW	1060	OW
Container Corp., Com.	1.00	22½	C	23	C
Container Corp. 4% Pfd.	4.00	89¼	C	89	C
Crossett Company, Class "A"	.65	43	46	54	57
Crossett Company, Class "B"	.65	43	46	54	57
Crown Zellerbach, Com.	1.80	47¾	C	45½	C
Crown Zellerbach, $4.20 Pfd.	4.20	93½	C	93	C
Curtis Companies, Com.	——	6¾	7¾	7	8
Dierks Forests, Inc., Com.	5.00&S	152	OW	152	OW
Evans Products, Com.	.50	12¼	C	13⅜	C
First Lumber Corp., Com.	——	6¼	7¼	7	8
Fordyce Lumber Co., Capt. Stk.	1.50	55	OW	55	OW
General Plywood, Com.	——	18¾	C	18⅝	C
Georgia-Pacific Co., Com.	.50&S	53¼	C	54⅜	C
Harbor Plywood, Com.	.40	25⅛	C	23½	C
Edward Hines Lumber Co., Com.	2.50	34	36½	34½	37
Insular Lumber Co., Com.	1.25	12	OW	12	OW
International Paper, Com.	3.00&S	96	C	98⅝	C
International Paper, $4 Pfd.	4.00	92½	C	94½	C
Keyes Fibre Co., Com.	1.20&S	14¼	15¼	14	15
Kirby Lumber Corp., Com.	2.00	50	52	49½	52
Longview Fibre Co., Com.	3.50	83½	86	82	86
Louisiana Central Oil & Gas, Com.	10.00	51	OW	50	OW
Louisiana Long Leaf Lumber Co.	5.00	157	OW	157	OW
Louisiana Sawmill Co. Com.	——	½	OW	½	OW
MacMillan, Bloedel and Powell River Co., Ltd.	1.40	16	17	14⅞	C

STOCKS	Paid 1959	This Month Bid	This Month Ask	Last Month Bid	Last Month Ask
McCloud River Lumber Co., Com.	4.00	100	107	92	102
McCloud River Railroad, Com.	3.00	42	OW	45	OW
Meadow River Lumber Co., Com.	•	225	OW	225	OW
Medford Corp., Com.	11.00	235	250	235	250
Mississippi Land Co., Capt. Stk.	1.60	15	OW	15	OW
Northwest Paper Co., Com.	.15&S	25½	28	25	28
O. & N. Lumber Co., Capt. Stk.	2.00	42	OW	42	OW
Olin Oil & Gas, Com.	2½%S	18	20	18	19
Ozan Lumber Co., Com.	4.00	92½	OW	92½	OW
Pacific Lumber Co., Capt. Stk.	12.00	325	OW	325	OW
Pickering Lumber Co., Com.	.40	8⅝	9⅝	9	10
Pine Tree Mfg. Co.	——	50	OW	50	OW
Pope & Talbot, Inc., Com.	1.25	30½	32	30½	32½
Pope & Talbot, Inc., Pfd.	.30	4¼	OW	4¾	OW
Potlatch Forests, Com.	1.00	47	50	47½	50
Puget Sound Pulp & Tbr. Co., Com.	.80	23⅛	C	22¾	C
Richmond Cedar Works Mfg., Com.	——	½	1	½	1
Richmond Cedar Works, Com.	——	¾	1¼	¾	1¼
Ritter, W. M., Lumber Co., Com.	2.50	70	OW	63	OW
Roddis Plywood, Com.	.40&S	19½	21	17¾	19
St. Regis Paper, Com.	1.40&S	37	C	38⅛	C
Southern Minerals Corp., Inc., Com.	——	3¾	4¾	3¾	4¾
Southwest Forest Indust. Inc., Com.	——	13¾	14¾	14	15
Tremont Lumber, Com.	2.00	OW	....	OW	....
U. S. Plywood, Com.	2.25	43⅝	C	45	C
Union Lumber Co., Com.	1.40	58	61	60	63
United States Lumber, Com.	.35	4⅛	5⅛	4	5
Upson Company, Com.	.40	11½	12½	12	13
Weyerhaeuser Co., Com.	1.10	35⅛	37	33¼	35¼
Winton Lumber Co., Com.	1.00	15	OW	15	OW
Wood Conversion Co., Com.	.45	11	12	11¼	12¼
Wooduse, Inc., Com. (Now Fersolin Corp. Com.)	——	⅝	⅞	⅝	⅞
BONDS					
Georgia-Pacific Corp. Subordinated Deb., 5s due 1976	——	89½	93	89½	94

•—Information not available BW—Bids Wanted S—Stock
OW—Offerings Wanted C—Last Sale on Exchange where listed or bid

THE ABOVE INFORMATION, WHILE NOT GUARANTEED, IS OBTAINED FROM SOURCES WE BELIEVE TO BE RELIABLE

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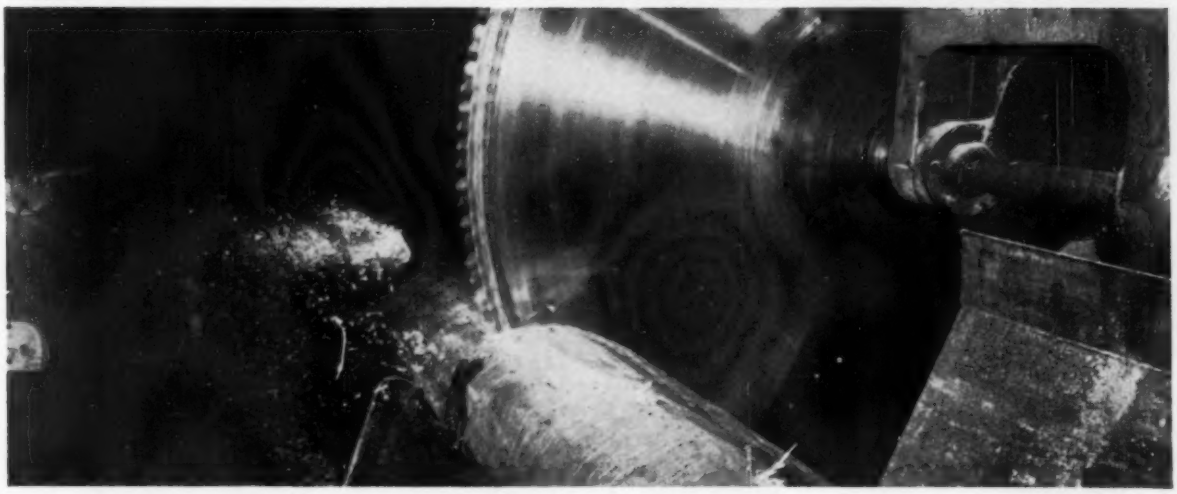

BOTTLENECK?

Have you found that with modern "speed-ups" your sawmill deck is holding up profit-making production? Many mills faced with this problem have switched to SPEAR & JACKSON "IT*" Saws. Engineered expressly for fast, clean cutting and made from alloy steels incorporating the new "Matthew" temper, they are a must for any efficient operation.

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"The Saw Without a Flaw"

Eugene, Ore., U.S.A.

* *Inserted Tooth*

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FACE VENEERS

Why tie up your money in inventory of raw flitch veneers and freight? Wood-Mosaic tapeless, spliced faces are matched, trimmed to size and ready to lay at the glue press.

Wood-Mosaic offers this facility in both face veneers and poplar crossbanding. All shipments well packed and crated.

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Woodstock, Ontario, Canada

Skragg Mill Produces 20,000 Feet a Day

The new plant of Vashon Stud Mill in Vashon, Wash., will handle material down to such small diameters that the company even purchases logs in cord lots from farmers. The firm is headed by Dom Spano and J. R. Patten.

Material is cut in 2- and 4-inch wide pieces in the skragg. A battery edger cuts the 4-inch cants to 2-inch strips on one side, and the 2-inch cants to 4-inch strips on the other. The plant will custom-cut on lengths.

Four men work at the mill: a fork lift operator, sawyer, edgerman, and planerman.

Mr. Spano believes his skragg mill could also cant alder logs available in the area.

•

Particleboard Standard Work Progressing

A recommended Commercial Standard for mat-formed wood particleboard has been submitted to the Commodity Standard division of the Department of Commerce and the Architectural Standards division of FHA by the National Particleboard Association.

An association Task group, headed by R. C. Platow, assembled the standard and presented it to the Commodity Standards division. The division will now circulate it to the industry, asking statements of acceptance.

Another standard, physical property specifications for mat-formed wood particle board for floor underlayment, was submitted to the Architectural Standards division.

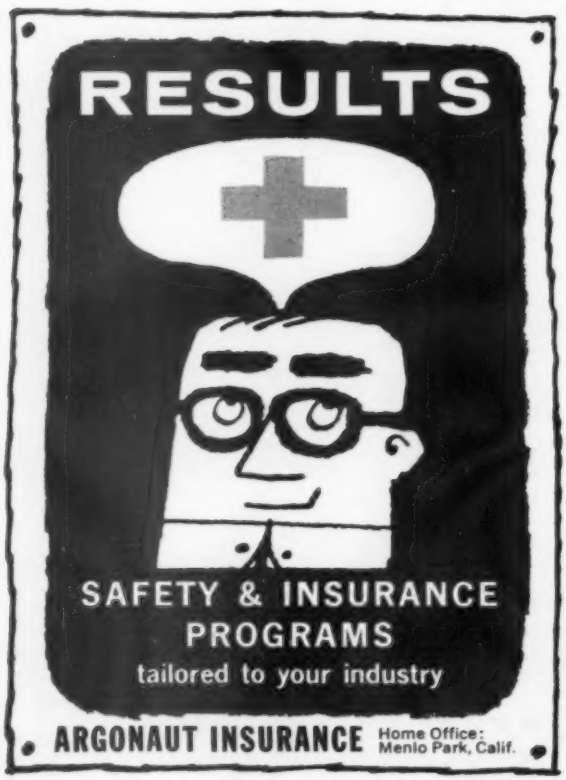
Working with Mr. Platow, who is with U. S. Plywood Corp., were Robert Crawford, Pope & Talbot, Inc.; R. G. Frashour, Pacqua, Inc.; Paul McCormack, National Starch & Chemical Co.; and Robert Pazina, Weyerhaeuser Co.

•

B. C. Lumber Group Wins Safety Award

British Columbia Lumber Manufacturers Association is one of 10 associations in the United States and Canada to win a National Safety Council Association Award. The association was cited for the excellence and balance in its safety programs and above-average progress in accident prevention.

The BCLMA reduced its disabling injury frequency 30% in the past five years.



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LUMBER PRICES

Douglas Fir

1x8	Utility S4S KD	$ 45- 50.00
2x4	Construction Dimension S4S KD	82- 84.00
1x4	C&Br VG Flooring KD	180-185.00
1x6	C&Br Drop Siding KD	155-160.00
1x6	C&Br S4S KD	170-175.00
1x8	C&Br S4S KD	170-175.00
1x10	C&Br S4S KD	175-180.00
1x12	C&Br S4S KD	215-229.00

Construction Timbers and Plank

3x12	6-20 feet	$ 91- 94.00
3x12	22-24 feet	96- 99.00
3x12	26-32 feet	104-109.00
4x4	8-20 feet	90- 93.00
4x4	22-24 feet	95- 98.00
4x4	26-32 feet	104-110.00
6x6	8-20 feet	90- 93.00
6x6	22-30 feet	97-100.00
6x6	32-40 feet	112-115.00
8x8	8-20 feet	90- 93.00
8x8	22-30 feet	95- 98.00
8x8	32-40 feet	110-113.00
6x6, 8x10, 10x10, 12x12	8-20'	$ 88- 91.00
6x10, 8x10, 10x10, 12x12	22-30'	93- 96.00
6x10, 8x10, 10x10, 12x12	32-40'	108-111.00

Construction Dimension (Green)

2x4	6-24 feet	$ 72- 74.00
2x6	6-24 feet	73- 75.00
2x8	6-24 feet	72- 74.00
2x12	6-20 feet	73- 75.00

Standard & Btr. Boards (Green)

1x4	6-20 feet	$ 65- 47.50
1x8	6-20 feet	65- 58.61
1-12	6-20 feet	66- 58.61

Douglas Fir Plywood

¼-inch AD S01S ---------- $ 68.00

Southern Pine (KD Stock)

Vertical Grain Flooring

	BB	C	D
1x4	$225.00	$215.00	$155.00

Flat Grain Flooring

1x4	165.00	157.00	140.00
1x6	197.00	177.00	135.00

Drop Siding

1x6 No. 106	197.00	184.00	137.00
1x6 No. 116	197.00	184.00	137.00

Boards and Shiplap

	1x6	1x8	1x10	1x12
No. 1	$120.00	$130.00	$130.00	$172.00
No. 2	76.00	82.00	80.00	93.00
No. 3	65.00	69.00	68.00	71.00

No. 1 Dimension

	12	14	16	18	20
2x4	$105.00	105.00	105.00	120.00	120.00
2x6	98.00	98.00	98.00	116.00	116.00
2x8	97.00	97.00	92.00	115.00	115.00
2x10	115.00	108.00	106.00	125.00	125.00
2x12	115.00	112.00	112.00	125.00	130.00

No. 2 Dimension

	12	14	16	18	20
2x4	$ 99.00	99.00	99.00	115.00	115.00
2x6	92.00	91.00	90.00	112.00	112.00
2x8	92.00	88.00	88.00	108.00	108.00
2x10	91.00	93.00	90.00	105.00	108.00
2x12	100.00	100.00	100.00	118.00	120.00

Western Pine

Ponderosa Pine

Selects	4/4	5/4	6/4
C Select	$244	$254	$258
D Select	156	189	184

Shop	No. 1	No. 2
4/4	$ 75	$ 58
5/4	135	102
6/4	133	101

Commons	No. 2	No. 3
1x8"	$ 88	$ 63
1x12"	100	71

4/4 No. 4 Common RW ---------- $ 64

Idaho White Pine

Select	4/4	6/4
Choice	$289	$294
Quality	184	251

Common	Col. (1)	Ster. (2)	Std. (3)
1x8"		$109	$ 79
1x12"		137	85

Sugar Pine

Select	4/4	5/4	6/4
B&Btr Select	$281	$249	$287
C Select	272	253	276

Shop	No. 1	No. 2	No. 3
5/4	$136	$ 99	$ 72
6/4	140	103	72
8/4	164	120	79

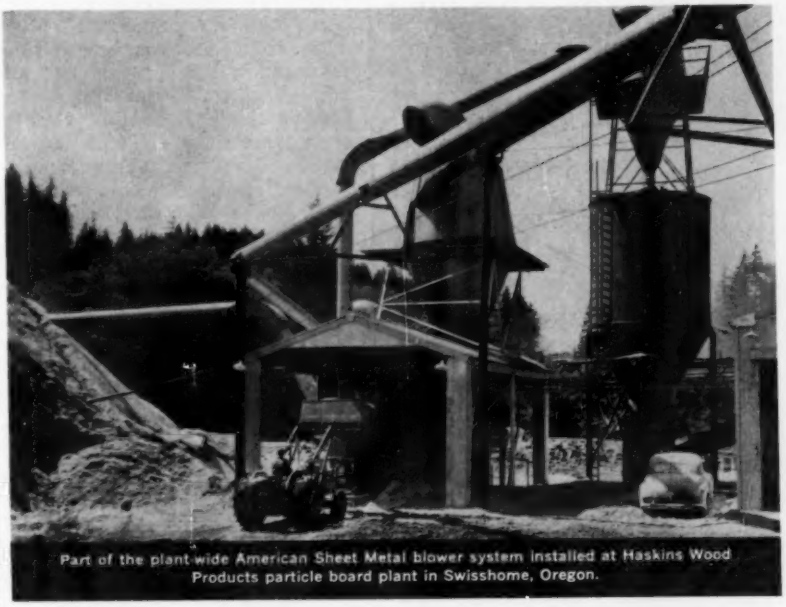
Larch-Douglas Fir

4/4 No. 3 Common	$69
2x4 No. 1 Dimension	68
2x4 No. 2 Btr Dimension	71

Veneer Plant in Eire

A new veneer mill has been built at Artane in Eire by "The Times" Veneer Co. (Eire), Ltd. It has much American equipment to produce high quality veneers from the hardwoods grown in Eire, which the Government of that country will not allow to be exported in the round. There is a Brenta bandmill, a 16-foot American vertical slicer, a 10½-foot Capital rotary machine, and dryers by Proctor and Schwartz.

• Russell P. Wibbens has joined the American Institute of Timber Construction as an engineering assistant.



Part of the plant-wide American Sheet Metal blower system installed at Haskins Wood Products particle board plant in Swisshome, Oregon.

Particles go American all the way at the Haskins Wood Products particle board plant

Nine separate blower systems comprise the American Sheet Metal contribution to moving raw materials in and waste products out at Haskins Wood Products new particle board plant in Swisshome, Oregon.

In addition, American Sheet fabricated the new particle board forming machines which form all three layers of the board simultaneously. Why did Haskins Wood Products choose American Sheet to fabricate blower systems, press hoods, storage silos and forming machines?

Because American Sheet means experience. Because American stands behind its installations. Because, even where quality is the prime consideration, American prices are competitive.

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SERIES C

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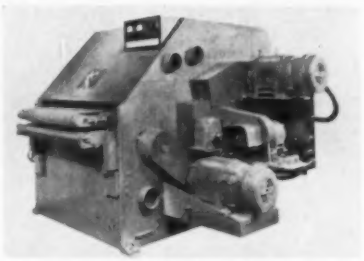

Unit Sands Both Sides In Single Pass

Specifications. SpeedBelt Model TBS has identical overhead and bottom sanding roll plus polishing platens. It utilizes a wide abrasive belt sanding technique to produce work ready for finishing. The units are available in 30, 40 and 50-inch widths.

Manufacturer. TimeSavers Sanders, P. O. Box 7446, Robbinsdale Station, Minneapolis 22, Minn.

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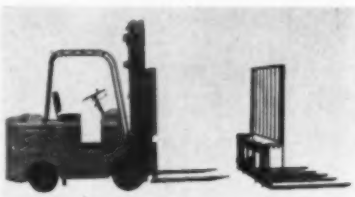


Lift Handles Cartons Without Palletization

Specifications. A special 82-inch 5-fork carriage allows the bottom row of cartons to act as a pallet by opening the carton lids. The two end forks have a 6-inch offset left to right to fit loads of varying widths. Five forks are attached to an oversize 82x76-inch high backrest for handling extra high loads.

Manufacturer. Towmotor Corp., 1226 East 152nd St., Cleveland 10, O.

•

Totally Enclosed Single Phase Motor

Advantages. Unit features an external centrifugal switch which can be mounted on the outside of the motor for accessibility.

Specifications. The unit is available in capacities from 1 to 5 horsepower. Internal fans, cast integrally with the rotor, recirculate internal air and eliminate hot spots. A large external fan, protected by a hood, blasts air over heat-dissipating fins. A single switch fits all models. It is not necessary to disassemble the motor or remove it from line for switch repairs.

Manufacturer. Brook Motor Corp., 3302 W. Peterson Ave., Chicago 45, Ill.

•

Heavy Duty Tensioner With Unlimited Takeup

Specifications. Manual Model TH has self-energized feed wheel that holds high tension. It takes strapping directly from coil and saves a foot or more of strap each time it is used. Any type seal can be used and can be placed either in front or behind the tensioner. The unit weighs 6 pounds. It takes strap sizes from ¾x.028 to to 1¼x.050 inches, waxed, painted or coated.

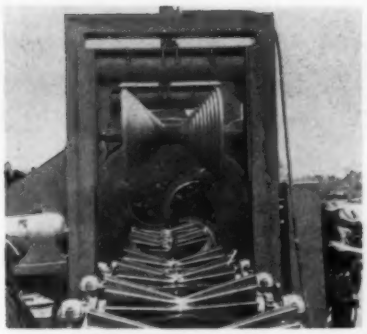
Manufacturer. Signode Steel Strapping Co., 2600 North Western Ave., Chicago 47, Ill.

•

New Carriage Designed For Smaller Logs

Specifications. Sturdi-30 has a 30-inch opening specifically designed for smaller logs. Construction is basically modular. Instead of the conventional frame, the headblock base carries the load directly to the rails. Base surfaces are precision machined, then rigidly positioned and welded to three 1-piece longitudinal members. When logs are slammed on the carriage and against the knees, the load and shock are absorbed by a series of neoprene shock-absorbing bushings and pads, and by air cushioned and spring cushioned cylinders plus spring mounting on idler sprockets. The Sturdi-30 carriage can be supplied with the specially designed Sel-Set remote controlled electronic setworks.

Manufacturer. The Wheland Co., Signal Mountain Road, Chattanooga, Tenn.



New Ring-Type Barker Uses Vacuum Principle

Advantages. Simplified maintenance . . . can be handled by mill mechanics. Operated by one man from remote control panel.

Specifications. Utilizing a vacuum diaphragm to maintain pressure on tool tips, constant for all diameters, and simple friction drive to rotor, the Model R-V requires only 40 hp, including in- and out-feed conveyor. There are no belts, chain, pulleys or sprockets on rotor drive. Standard R-V model barks pine and most hardwoods intermixed, 5 to 30 inches in diameter with same tools and settings and at lineal feeds from 0 to 50 fpm.

Manufacturer. Soderhamn Machine Manufacturing Co., Talladega, Ala.

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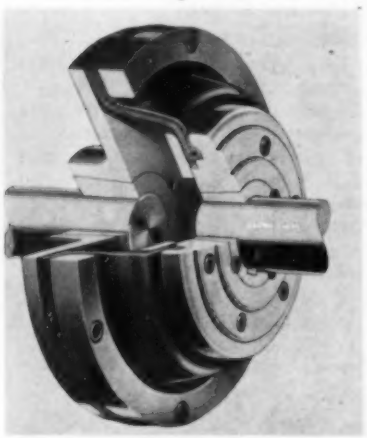

New Flexing Element Ups Coupling Speed, Torque

Application. Power transmission.

Advantages. Operates at higher speed and transmits more torque than previous units.

Specifications. A pan-shaped rubber flexing element replaces the original rubber-tire-shaped floating member of cord and rubber construction. New units are the Para-flex High Speed and the Para-flex flywheel couplings. The High Speed coupling consists of the flexible member supported on one side by a clamp-ring flange, and with its larger side bolted to a steel disc. Both the flange and disc are equipped with Taper-Lock bushings for quick, easy mounting. The flywheel type coupling is like the High Speed unit except that its larger side bolts directly to the flywheel of an internal combustion engine instead of being supported by a taper-bushed steel disc.

Manufacturer. Dodge Manufacturing Corp., Mishawaka, Ind.

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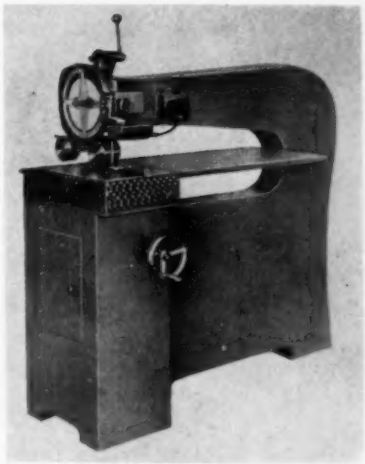

Veneer Taper Uses Less Costly, Smaller Tape

Advantages. Reduced cost.

Specifications. The Nottmayer veneer taper does not push, pull or draw veneer together. Two canted rollers simultaneously and automatically feed veneers and bring them together to form high fidelity joints, whether veneers are straight, buckled or brittle. Each roller compensates for thickness variations in veneers as they are fed and taped. The Nottameyer requires floor space of 5 feet, 3 inches by 2 feet, 8 inches. The new tape used by the machine was developed in Sweden.

Manufacturer. Wilco Machine Works, Inc., P. O. Box 3897, Memphis 14, Tenn.

•

Gas-Turbine Power Plants Announced

Specifications. The Econo-Pac units are designed for peaking, reserve capacity or emergency operation. The plant requires only a flat concrete slab foundation about three feet thick, plus electrical and fuel connections. Evaporative inlet air coolers can be used to maintain full generating capacity when the dry-bulb air temperature exceeds 80° F. When the ambient temperature is 40° F. and below, output is 25% in excess of its 80° F. rating.

Manufacturer. Westinghouse Electric Corp., Box 2278, Pittsburgh 30, Pa.

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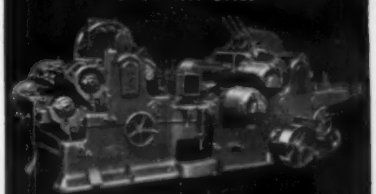

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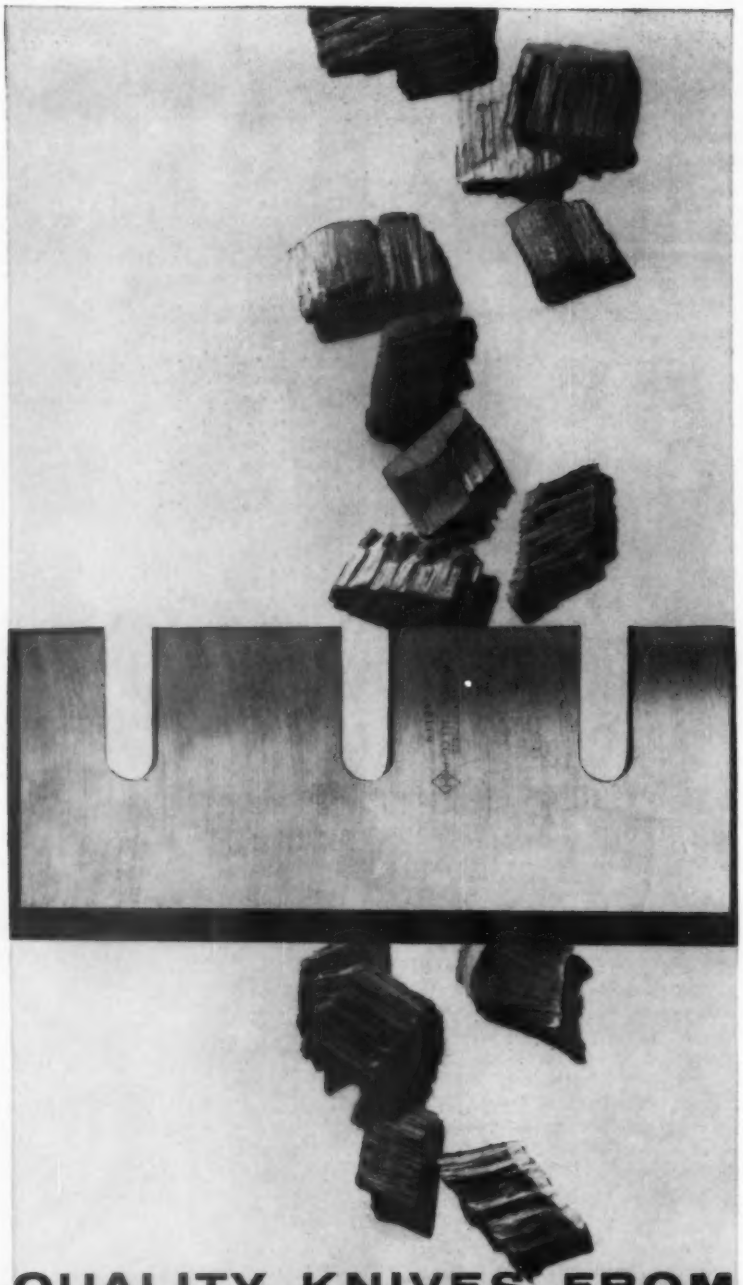
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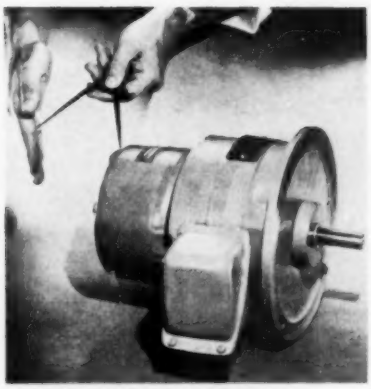

Thinline Brake Motor Is Shorter, Lighter

Application. Power for hoists, conveyors, cranes, machine tools, sawmills.

Specifications. Frame and endshields of Thinline brake motor are of rigid cast iron construction. Initially offered in drip proof construction only, the new brake motor is available in polyphase ratings of 1 through 5 horsepower at 1800 rpm, three-quarters through 3 horsepower at 1200 rpm, and one-half through 2 horsepower at 900 rpm.

Manufacturer. General Electric, Schenectady 5, N. Y.

•

Rollerbar Drive Reduces Downtime

Advantages. Takes only 10 minutes to change.

Specifications. The CRB rollerbar drive for veneer lathes has removable and interchangeable caps, built-in puller, built-up bearings and hardened sprocket. The unit has only three moving parts. The rollerbar drive cuts extremely close to the core.

Manufacturer. Crescent Rollerbar Case Service, Highway 101 North, Crescent City, Calif.

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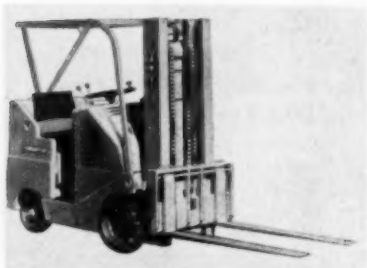


High Stacking Mast Built for Low Loading

Advantages. Will stack heavy loads 12 feet high, lowers to height of 71 inches.

Specifications. The mast is a nested type, with one stationary and two

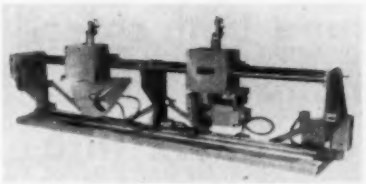
sliding members. Mast sections are of precision-rolled carbon steel protected by bronze wear strips. The mast is available as optional equipment on the 13 Towmotor fork trucks on which it is offered.

Manufacturer. Towmotor Corp., 1226 East 152nd St., Cleveland 10, O.

•

Double Blade Chop Saw Handles Trimming Work

Specifications. Two blades come down simultaneously to cut trim material to exact length and correct mitre. Each blade may be rotated from 90° to 45°. This makes it possible to cut trim with two 45° ends or one end 45° and the other 90° and so forth. Air cylinders handle up and down movement of the direct motor-driven saw blades. They are actuated either by a foot switch or limit switch.



Manufacturer. Kvalheim Machinery Co., Petaleuma, Calif.

Ford Motor Announces Lift Truck Model

Specifications. The new fork lift, a new item for Ford, is equipped with either a gasoline or diesel engine of 172 cubic inches displacement. It is offered with four stacking heights, 10, 12, 16 and 21 feet, and 2- and 3-stage masts. Loads of 4000 pounds can be handled by the 10- and 12-foot lift trucks. For handling bulk material and all standard size pallets and skid boxes, adjustable forks of 42- and 60-inch face places are available. Features include a low center of gravity,

(Continued on next page)

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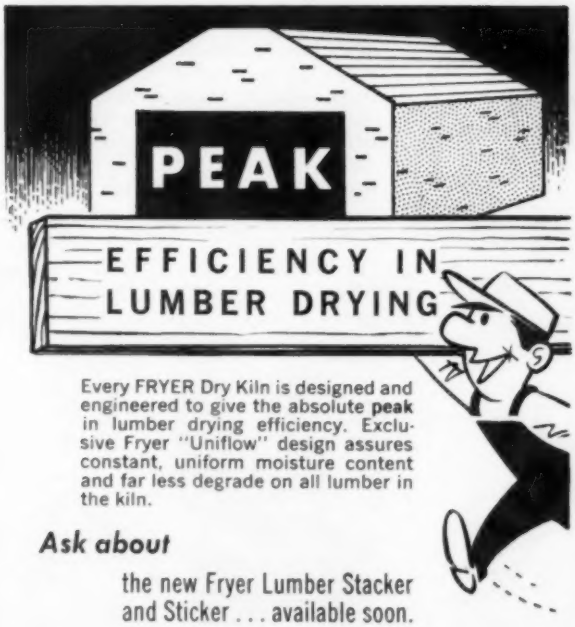

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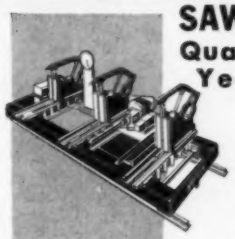

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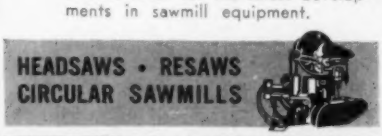

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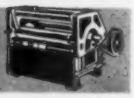

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P. O. BOX 367- ? COLUMBIANA, OHIO

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- ECONOMY IN FLOOR SPACE
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with a height of under eight feet to top of protective cab, power steering and optional reversing transmission gear shift. Mast can be tilted hydraulically 6½° forward and 13½° backward, and the load can be shifted six inches from side to side by lateral movement of forks.

Manufacturer. Ford Motor Co., Tractor and Implement division, Birmingham, Mich.

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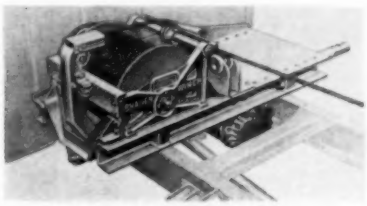

Power, Storage Functions Separated On Winch

Application. Haul material.

Advantages. Greater capacity with constant load, speed, torque and horsepower, resulting in safer operation.

Specifications. Two power drums do the pulling, a large capacity storage drum takes up the cable. Speed and load remain constant because there is no build-up or layers of cable on the power drum. The hydraulic winch has three basic cable speeds which can be varied by hydraulic control. Brake pressure is not applied by springs, but by the load on the winch cable. One-man operation is possible by the winch's remote control system with only two control levers; hydraulic valve and the three-speed winch transmission. Model CL handles either ½ or 7/16-inch cable. The drum holds 1000 feet of ½-inch cable.

Manufacturer. Braden Winch division, Motor Products Corp., Broken Arrow, Okla.

•

Wood Moisture Meter Tests All Products

Specifications. The new meter is compact, light and portable. It requires no outside electrical source. It will measure moisture content in wood products of all kinds, regardless of

shape or surface conditions. Two models are offered.

Manufacturer. Kel Engineering & Equipment Co., 11 Cambridge Lane, New Brunswick, N. J.

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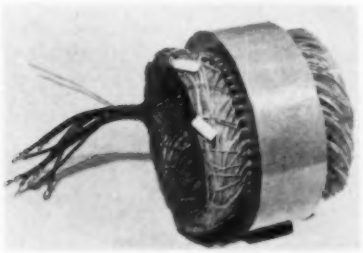


Protection from Overload Built Into Motor

Application: Protect against overload in Tri-Clad '55 3-phase, induction motors up to 125 hp.

Advantages: Burnouts from overload are virtually impossible; driven equipment can match the drive motor more closely to the load since a higher power rating as a safety margin is not necessary; no expensive control devices, relays or amplifying circuits are needed.

Specifications: Protection is provided by two or more miniature heat-sensing switches buried in the stator windings. Under rapid rise, the Thermo-Tector switches "anticipate" and open the circuit at a lower temperature than when the rate of rise is slow. Only two additional wires are necessary. Switches are small enough to be buried in the stator windings where motor heat is generated, but are rugged enough to handle size four contactor coil current.

Manufacturer: General Electric, Schnectady 5, N. Y.

•

Sectional Sprocket Speeds Repair Work

Advantages. Down time for repair or replacement is cut by 90%.

Specifications. The Daw-Sprok consists of three parts: rimmed hub and two sprocket rings, called Twin Rings. Toothed rings can be securely fitted to the hub rim and bolted in place in a few minutes. Neither shaft, bearing, adjacent framing or other sprockets need be disturbed. Daw-Sproks are available in a variety of sizes.

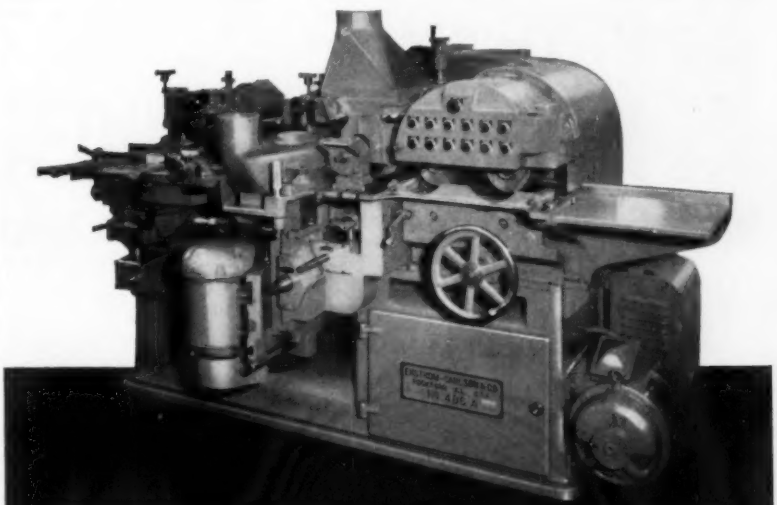
Manufacturer. Daw-Sprok Sales Corp., Eureka, Calif.

•

Selectric Adds New Sawbox Control Console

Specifications. New model is extremely compact, with unitized construction and heavy wiring. It has hinged covers for easy access to all internal components. Relay panels can be readily removed as a unit for continuity check. Push buttons for both pre-set and backstand settings are positioned at finger-tip command of sawyer. Elevated back section of console contains a series of indicator lights corresponding with each push button position. Taper switches are located at the front. Any number of foot pedals can be included. The console is available in 14- and 18-inch widths.

Manufacturer. Mill Equipment, Inc., 5219 First Avenue South, Seattle 8, Wash.



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Automatic brakes stop all spindles instantly.

Infinitely variable feed rates from 25 to 225 F. P. M. without stopping the machine.

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High Power Reserve In 6-Cylinder Lift

Application. Material handling.

Advantages. Smooth, safe material handling.

Specifications. New engine is a Continental F-226 with 226-cubic inch displacement which develops 73 hp at 2400 rpm. It delivers 178 foot-pounds of torque at 1200 rpm. The L-head engine has individual valve porting. Improved power ratio is secured from a heavy duty Timken combination transmission and drive axle providing direct drive with choice of four speeds forward and four speeds in reverse. The unit has standard single drive wheels with 12-ply lug tread 8.25x15 pneumatic tires. Dual drive tires are available. The truck has a handling capacity of 6000 pounds at 24-inch load center.

Manufacturer. Erickson Power Lift Trucks, Inc., 239 Street Anthony Boulevard, N. E., Minneapolis 18, Minn.

•

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Air Filter Removes 99% of Dust, Impurities

Application. Assures clean air for engine air induction system.

Advantages. Thorough job.

Specifications. Fram heavy duty filter has three coverings which make up its two layers. Dirty air enters the inlet opening in side of filter, then passes through synthetic fiber batt precleaner, which is held by a metal screen. This removes very fine material. Air then enters inner filter of pleated Filtronic paper cartridge where over 99% of undesirable material is removed.

Manufacturer. Fram Corp., Providence 16, Rhode Island.

•

New Debarker Handles Large, Knotty Logs

Specifications. The DC-8 handles logs from 6 to 60 inches in diameter, 6 to 28 feet long. It is available in a larger model for logs 12 to 80 inches in diameter. The machine is built for rugged conditions, using extra heavy duty bull wheels, reversible and variable in speed, on 4 15/16-inch shafts and bearings, driven by a 10-hp electric motor. The barker uses shaver,

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scraper or flail head, powered by a 50-hp motor. Hydraulic unit controls speed movement of barking head and the built-in log kicker.

Manufacturer. Soderhamn Machine Manufacturing Co., Talladega, Ala.

•

Westinghouse Offers New Circuit Breakers

Advantages. Overload protection for entire range of application; available in only six frame sizes instead of 12 previously used.

Specifications. Typical of the new frame sizes is the KA breaker which can now be used instead of the old JK and K frames. KA frame has interchangeable trip, will carry up to 225 amperes and will interrupt up to 30,000 amperes at 240 volts ac., as did the frame it replaces. The six frames have maximum current ratings from 10 to 800 amperes, and interrupting capacities from 5000 to 50,000 amperes.

Manufacturer. Westinghouse Electric Corp., P. O. Box 2099, Pittsburgh 30, Pa.

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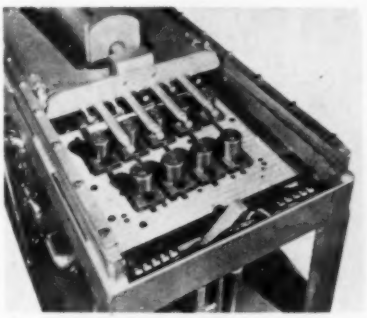

Setting Increased On Control Device

Application. Automatic setworks.

Advantages. Nine settings are available in same space formerly occupied by five.

Specifications. The new pre-set device incorporates a switching circuit modification which permits any one of the setting thicknesses to be preselected by one of the self-cancelling panel buttons while the actual setting operation is activated by a thumb button added to the feed stick. With this arrangement, settings can be repeated by merely pushing the thumb button until a change is made on the panel switch. The cancellating setworks device and control panel is available for installation on Super Swede carriages currently in use as well as on new carriages.

Manufacturer, Calvert-Preston Machine Service, Boring, Ore.

CHAPMAN Sealtite is an inexpensive chemical formulation easily applied to the ends of logs and lumber to reduce end-checking. It seals the end grain of the wood. This prevents excessive moisture losses which often cause internal stresses and result in costly end checks and cracks.

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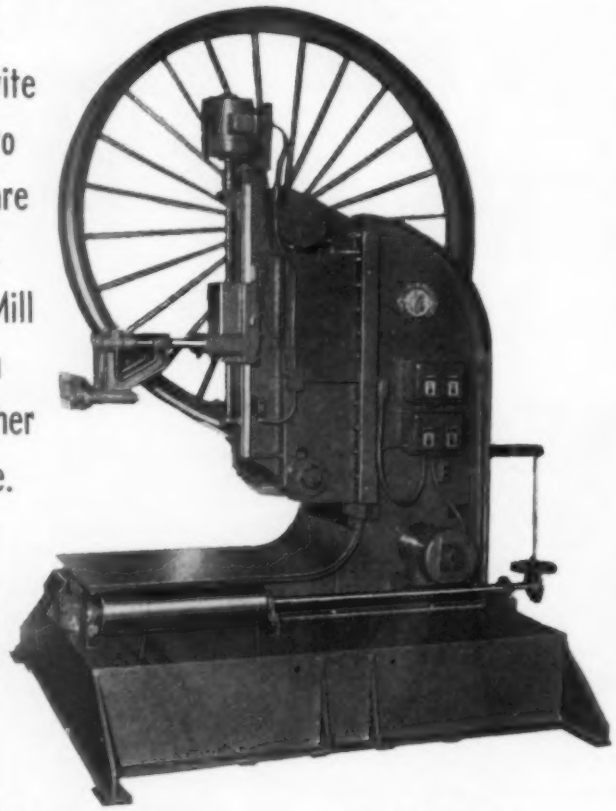

MORE CAPACITY

New design gives added capacity for sawing larger logs. Compares with next saw larger in competitive makes.

WIDER THROAT

Increased throat opening provides more clearance for cants and wide boards. Less time-loss from jam-ups in offbearing.

TILT ADJUSTMENT

Micro adjustment for tilting upper wheel is conveniently located and gives fast positive setting.

HIGH COLUMN

No need to order special high column machine . . . it's built-in this new Model D by Klamath Machine & Locomotive Works.

ELEVATING SCREW

Damage from cants and falling lumber is eliminated by positioning the elevating screw behind the column supports.

With greater capacity, clean design and other outstanding new features– this Bandmill offers a bonus to the sawmill operator.

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BOX 68 – UKIAH, CALIFORNIA

Towmotor Establishes New Service Program

To eliminate downtime of expensive materials handling equipment, Towmotor-Gerlinger Corp., Cleveland, Ohio, has set up a comprehensive nationwide service program under which all Towmotor fork lift trucks will receive unprecedented field servicing.

The program is divided into three parts: regularly scheduled preventative maintenance; emergency repair service; and a complete rebuilding service. All will be accomplished at the local level by factory trained and supervised maintenance experts.

A brochure detailing the program is available from all Towmotor sales representatives' offices or from Towmotor-Gerlinger Corp., Cleveland 10, Ohio.

•

Equipment Leasing

New equipment of all kinds, except for automobiles, will be leased to lumber, plywood and board plants by recently established American Federal Lease Corp., Portland, Ore. The firm will also buy presently-owned equipment from commercial firms and lease back to those firms. The company will lease aircraft. President of the new company is Walker M. Treece, also president of Granning & Treece Finance Co.

•

Onsrud Adds Firm

Onsrud Machine Works, Inc., Niles, Ill., has purchased the Hydraulic press division of the Berthelsen Engineering Works, Inc., Joliet, Ill. The Berthelsen product lines included heated platen single and multi-open presses for laminating plywood and board. Manufacturing, sales and services will be carried out under the newly formed Onsrud Berthelsen Hydraulic Press division.

•

Bigger Prefinishing Plant

A large, new manufacturing plant is being established for Industrial Plywood Co., Inc., in Jamaica, Queens borough in New York City. It will replace plants in Brooklyn and Jamaica. In addition to prefinishing plywood panels, Industrial also wholesales panels.

•

• Fred E. Barnett & Co., logging and sawmill supply firm headquartering in San Francisco, Calif., has added a branch office and warehouse at Redding, Calif., and a warehouse at Camino. Jim Retzloff heads the Redding branch.

NEW WINSTON LUMBER CO. MILL at Double Springs, Ala., was engineered by Corinth Machine Co., Corinth, Miss. The all-steel 43x140-foot building has a laminated 2x4 wood floor. Innovations include an automatic offbearer, a 23-inch belt, on the circular headrig. The Calvert carriage is one of the first in the area. Other equipment includes a 26-inch Dominion-Premier gang, Memphis edger with Corinth tailoff, Super Swede setworks, Norman chipper, 26-inch Cambio barker and Montage trimmer. Owner W. S. Coats, who designed much of the mill, expects a cut of 40,000 feet a day, all pine.

Dominion Plywood, Ltd. Adds Prefinish Line

A new 65-foot-long prefinish line for decorative plywood panels will occupy a 109-foot-long building constructed by Dominion Plywoods, Ltd., Southampton, Ontario.

Keystone in the new production line is a Litzler continuous laminating machine. This is the second such machine manufactured by the Cleveland firm, the first having gone into the Algoma Plywoods plant at Algoma, Wis. The finish process uses Videne, a unique polyester dry film, patented by the Goodyear Tire & Rubber Co.

Don McGillivray, general manager, and this year's president of the Canadian Plywood & Veneer Association, is very enthusiastic about the new process. He says, "this is the greatest advancement yet in wood protection as it maintains the wood's natural beauty indefinitely."

Mr. McGillivray foresees Videne even applied to lumber. In fact, Goodyear has been experimenting with lumber manufactured from certain species. Accelerated weathering of Videne treated siding indicates an 80-year life.

•

• The Northern California section, Forest Products Research Society, will hold its fall meeting during Forest Products Week, October 16-22.

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More Safety

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First aid classes are regular occurance. Here, Mike Mattson, safety supervisor, gives instructions to personnel.

Bulletin boards act as constant reminders and continuously emphasize the importance of safe working habits.

Health service is open round the clock. Shown with worker are Mrs. Ella Howard, head nurse; Ann Sullivan, registered nurse.

Safe entry to crane is provided by catwalk and cable handrail attached to boom of crane. Note slip-proof surface. Workers previously "rode the buckets."

Safe tire inflating is assured by this rig. Split rim and locking devices had "exploded" causing serious injury. The steel rack contains the exploding parts, no matter what happens. Access to valve stems is through holes in the sides. Castors on bottom allows convenient movement around shop. ■■

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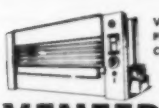

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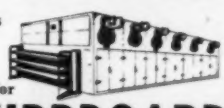

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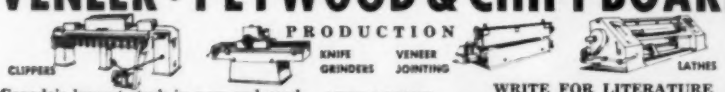

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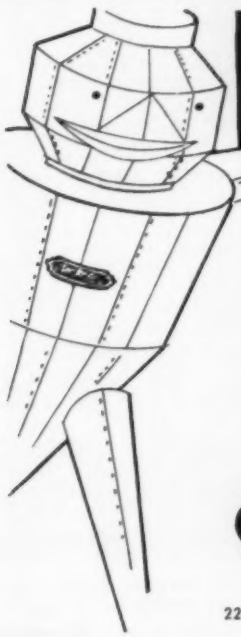

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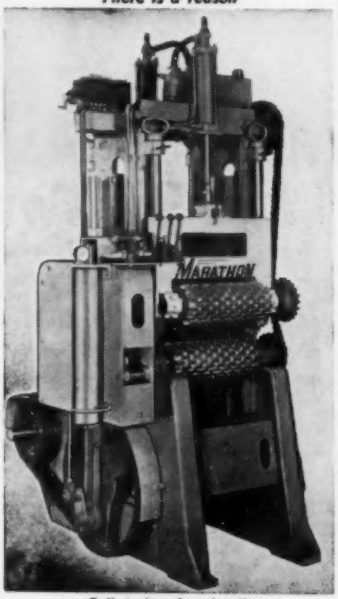

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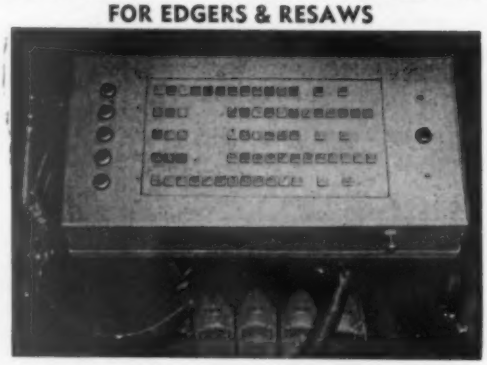

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Phelps Bros., Eugene, Ore.; Williams Lake, B.C.
Rader Pneumatics, Inc., Portland; Vanc., B.C.

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Clayton Manufacturing Co., El Monte, Calif
A. W. Mortensen Co., Portland, Oregon.
Seattle Boiler Works, Seattle, Wash.

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Nichols Boat Works Co., Hood River, Ore.

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Raybestos-Manhattan Corp., Grey-Rock Div., Manheim, Pa.
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BRIQUETTE MACHINERY
Sumner Iron Works, Everett, Wash.

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Mill Equipment, Inc., Seattle
Northeast Ohio Machine Bldrs., Columbiana, O.
Sel-Set Machinery Corp., Salem, Ore.

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Corley Mfg. Co., Chattanooga; Portland
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Klamath Iron Works, Klamath Falls, Ore.
Klamath Machine & Locomotive Works, Ukiah, Calif.
Mill Equipment Inc., Seattle
Northeast Ohio Machine Bldrs., Columbiana, O.
Prineville Machinery and Supply Co., Prineville, Ore.
Sel-Set Machinery Corp., Salem, Ore.

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Klamath Machine & Locomotive Works, Ukiah, Calif.
Link-Belt Co., Seattle; Portland; San Francisco
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Portland Chain Mfg. Co., Portland

CHAIN, Steel Roller and Malleable
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Link-Belt Co., Chicago, Seattle, Portland, San Francisco, Los Angeles, Spokane, Vanc., B. C.
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Archer Blower & Pipe Co., Seattle and Portland
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Rader Pneumatics, Inc., Portland; Vanc., B.C.

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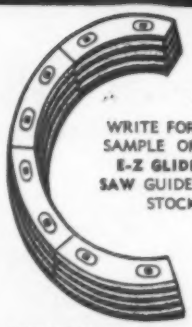

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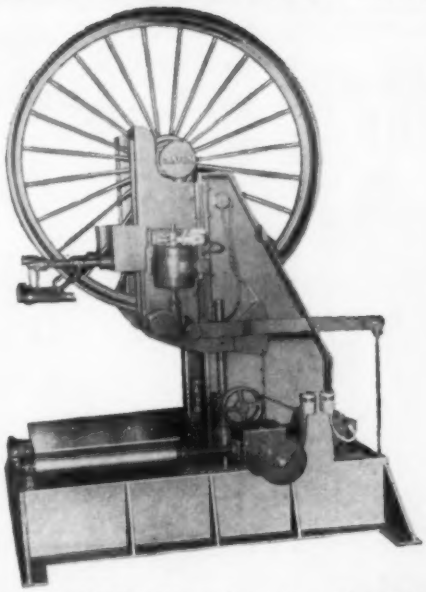

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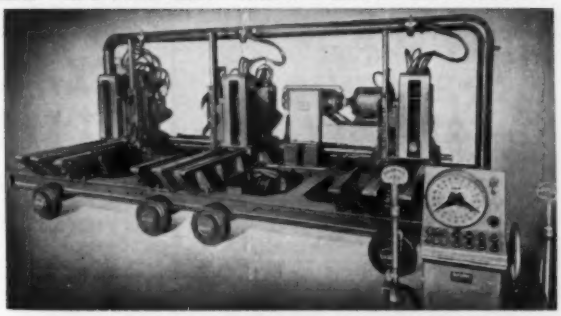

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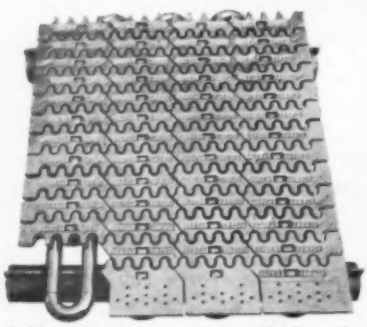

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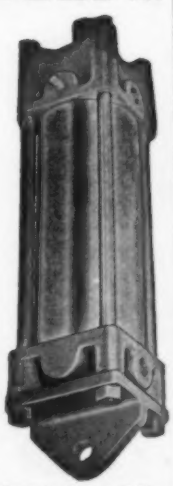

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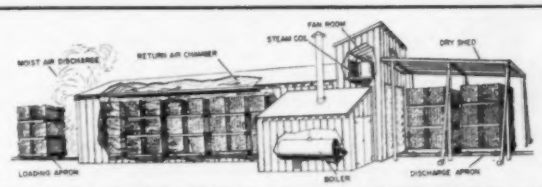

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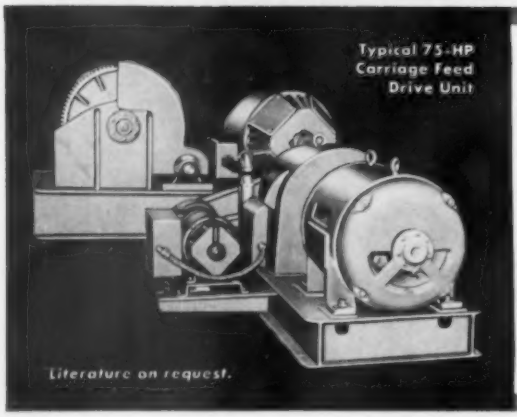

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1—#39 Whitney 2 Sp. Shaper $500.00

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1—Mershon Twin Resaw, 46" wheels, reconditioned.
1—54" McDonough L. H. Vertical Resaw, driven by 50 HP Lima Electro motor. Four roll infeed table.
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1—Mershon 54" Vertical Resaw.
1—V-4 Yates Butterfly Vertical 54" Resaw.
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#16 Wickes gang 14x40 comp. rebuilt $12,000

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First issue of WORLD WOOD was jointly edited by Dean Sherman, editor of THE LUMBERMAN and Albert Arnst, editor of THE TIMBERMAN. The two editors will continue to serve the journal as editorial directors. Harold H. (Bill) Keil, associate editor of THE TIMBERMAN and THE LUMBERMAN, has been appointed permanent editor. He will continue his associate editor duties on the other journals.

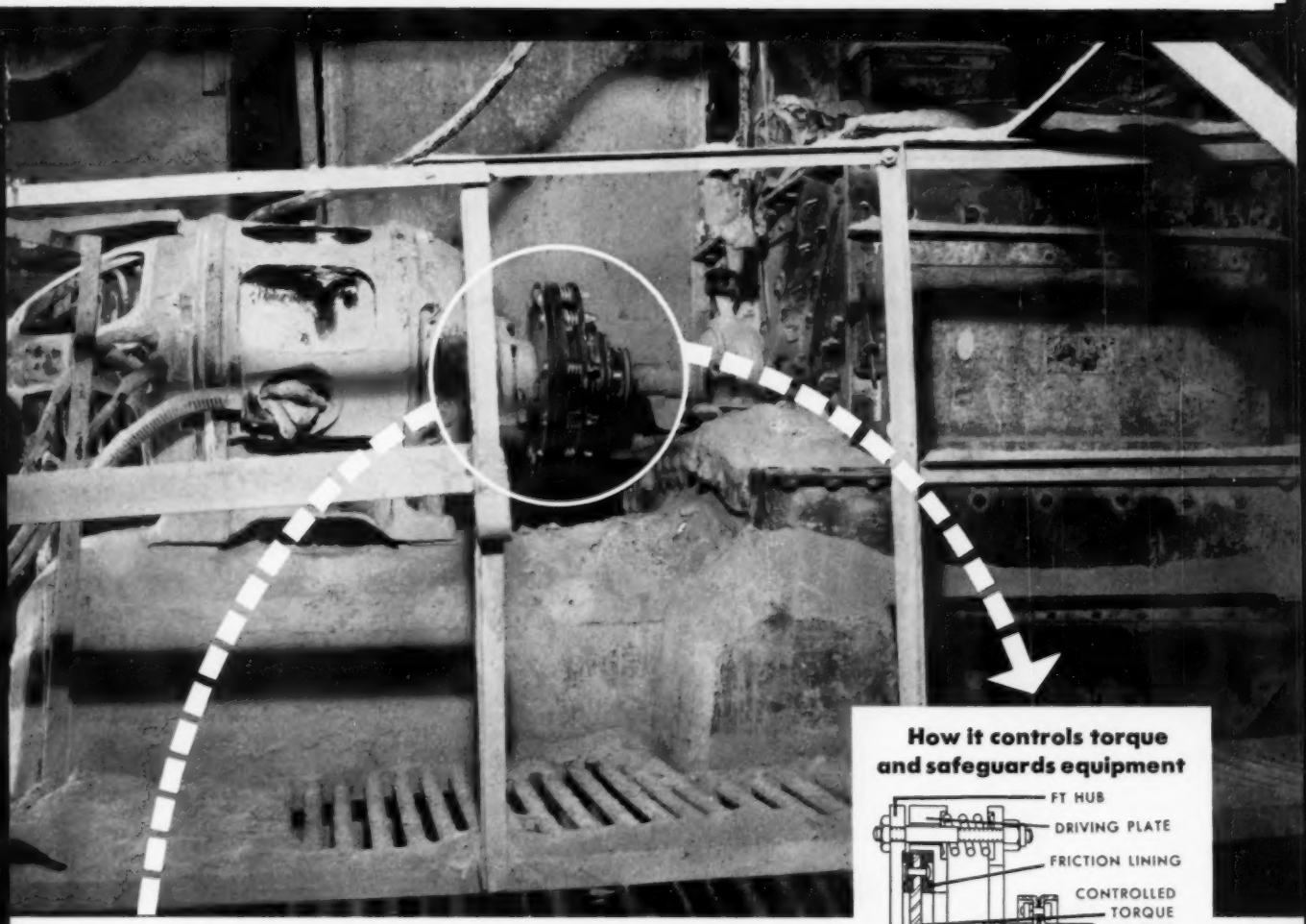
For the official send off of WORLD WOOD, which will have primary circulation in nations outside the United States, our staff was expanded with the addition of Bernard W. Lansdowne, London, manager of United Kingdom region, Dr. Walter F. Vogeno, Koln, West Germany, director, Continental European operation, and Ralph David, New York City, overseas manager for Miller Freeman Publications.

Final plans for the first issue of WORLD WOOD were worked out by Dean Sherman, left, and Albert Arnst. The new world wide publication required frequent huddles by editors.

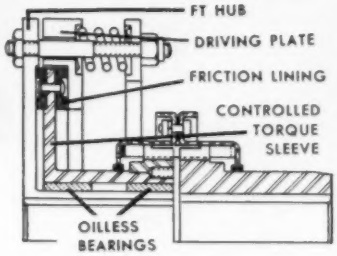
First Issue of World Wood, just off the press, brought critical study from editors and overseas managers. Seated, from left: Bernard Lansdowne, U. K. manager, London; Harold Keil, new editor of WORLD WOOD; Dean Sherman, editor, THE LUMBERMAN. Standing, from left: Dr. Walter Vogeno, Continenal European operations manager; Lee Flatberg, managing editor of the three forest industry journals; Albert Arnst, editor THE TIMBERMAN.

TV filmed and interviewed Lansdowne and Vogeno for a special television news program that covered the event of their visit and the launching of WORLD WOOD.

Visits to woods and mill operations in the Pacific Northwest were made by the visitors. Robert Dwyer, Dwyer Lumber Co., Portland, Ore., points out site for new logging road to Lansdowne, left, and Mrs. and Dr. Vogeno.



How it controls torque and safeguards equipment



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